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Organic Contract Compliance Screening System (OCCSS) Software for the PC (Version 2/90) User Manual

Viar and Co., Alexandria, VA

Prepared for:

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National Technical Information Service
NTIS

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ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

Software for the PC (Version 2/90)

USER MANUAL

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Management Services Division

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Sample Management Office

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16. Abstract (Limit: 200 words)

This document is the user manual for Organic Contract Compliance Screening System (OCCSS) software. OCCSS software is a version of a mainframe-based application developed for the U.S. Environmental Protection Agency's National Contract Laboratory Program (CLP). OCCSS is designed to automate the determination of contractual compliance and completeness of data submitted to EPA under the Routine Analytical Services (RAS) programs of CERCLA (Comprehensive Emergency Response Clean-up and Liability Act) and SARA (Superfund Amendments and Reauthorization Act). In order to remain consistent with the mainframe system this PC version of OCCSS is written in SAS, and requires that SAS/PC be installed on the host PC. It will load analytical data from diskettes into SAS file format, perform technical edits on the data, produce technical defect and summary reports, and reproduce forms which show defects. In addition, OCCSS includes software to detect critical structural defects in the data format, to assist in identifying these for correction prior to preforming technical edits. The 2/90 version of OCCSS software is applicable to structural and technical checking of diskette data in either format A or B for Organics analysis under the CLP RAS 2/88 Statement of Work (SOW).

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ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM (OCCSS) SOFTWARE FOR THE PC (VERSION 2/90)

USER MANUAL

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DISCLAIMER

This documentation is for the Organic Contract Compliance Screening System (OCCSS) software release version 2/90. The OCCSS materials in this release have been designed to assess data delivered under the CLP Routine Analytical Services Statement of Work 2/88 for Multi-Media Multi-Concentration Organics Analysis. OCCSS software has been written assuming the above Statement of Work (SOW) specifications. This software will produce ambiguous results if data field and format specifications of the SOW are not exactly followed.

The Contract Compliance Screening System software is provided without guarantee or warranty of any kind, expressed or implied. The Contract Laboratory Program (CLP), U.S. Environmental Protection Agency (USEPA), and Viar and Company will not be liable for any damages, losses, or claims consequent to use, modification, or interpretation of this software. There is no guarantee or warranty, expressed or implied, that this software will generate reports that will be acceptable to the recipient.

Questions regarding this release of Organic Contract Compliance Screening System software should be directed to CCS System Software Problem Registration at 703/683-0885.

I. WHAT IS ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM SOFTWARE?

The Organic Contract Compliance Screening System (OCCSS) software is a version of a mainframe-based application developed by Viar and Company for the U.S. Environmental Protection Agency's National Contract Laboratory Program (CLP). OCCSS is designed to automate the determination of contractual compliance and completeness of data submitted to EPA under the Routine Analytical Services (RAS) programs of CERCLA (Comprehensive Emergency Response Cleanup and Liability Act) and SARA (Superfund Amendments and Reauthorization Act).

This PC version of OCCSS will load analytical data from diskettes into SAS® file format, perform technical edits on the data, produce technical defect reports and summary reports, and reproduce forms which contain defects. In addition, OCCSS includes software to detect critical structural defects in the data format, to assist in identifying these for correction prior to performing technical edits.

The 2/90 version of OCCSS software is applicable to structural and technical checking of diskette data in either Format A or B for Organics Analysis under the CLP RAS 2/88 Statement of Work (SOW).

II. USING THIS MANUAL

This manual provides the user with instructions for running OCCSS software on the PC. Descriptions of and instructions for each menu are detailed in the following sections. The user should have a working knowledge of PC DOS prior to utilizing this system.

The following sections present the OCCSS operating environment, describe system output (reports), provide instructions for running the system and generating reports, and specify input data requirements. Examples of reports are contained in Appendix A. Appendix B contains descriptions of sample suffix codes and report defect codes. Appendix C is a listing of defect statements by criterion with associated SOW references. Data Formats A and B from the Organic RAS SOW (2/88) are included as Appendix D.

Since OCCSS PC software is implemented using Base SAS® Software, the "SAS® LANGUAGE GUIDE for Personal Computers" from The SAS Institute, Inc. in Cary, North Carolina may be helpful.

III. OCCSS OPERATING ENVIRONMENT FOR THE PC

Hardware

- IBM AT/PS2-compatible PC
- 2 megabytes of RAM with memory over 640K configured as expanded memory
- Hard disk with at least 10 megabytes of available space
- Printer with wide carriage or ability to compress print

NOTE: This application requires a minimum of 585K of base memory. Other software which are memory resident will use up base memory and should not be on the same machine as OCCSS. TOTAL MEMORY FREE can be checked by running CHKDSK from DOS. The last line of the CHKDSK output (bytes free) must be greater than or equal to 585,000 or OCCSS will not be able to run.

Software

- DOS Version 3.3
- CONFIG.SYS file containing the following lines: FILES=50 and BUFFERS=20
- Base SAS® Software installed on the C: drive in a subdirectory named C:\SAS\. The following line must be inserted at the end of the CONFIG.SAS file in the SAS subdirectory: -EMS ALL

OCCSS Performance Considerations

The OCCS system software is a direct conversion of a large mainframe application to run on a PC. For this reason, operating the system efficiently requires a powerful PC. The performance of the software will depend heavily on the hardware used. System tests were run using an IBM AT-compatible PC running at 25 MHz with an 80386 CPU and a 28 millisecond access time disk. This is a very powerful configuration. With this equipment, the time for processing of typical diskettes was as follows:

Format	Structural Edits	Technical Edits
Format A	16 minutes	2 hours
Format B	20 minutes	3 hours

Using the software on a less powerful hardware configuration will increase the processing times correspondingly. In addition, the actual time for processing a particular set of data will vary with the size of the data files and with the number of defects found.

NOTE: This application has been tested on the above-described hardware/software configuration only. It is not known if it will run on other configurations, such as a LAN or LAPTOP computer.

IV. OCCS SYSTEM OUTPUT

Structural Defect Reports

The Structural Defect Reports evaluate various elements of diskette file configuration which might render portions of the diskette data ambiguous. These reports show basic structural problems with the files and data that should be corrected before the Technical Defect Reports are run.

The Structural Defect Reports consist of a set of five reports (A1-A5) for Format A data and three reports (B1-B3) for Format B data.

Format A Structural Defect Reports

Report #A1: Displays records with invalid key fields, i.e., FORM, SUFFIX and RECORD TYPE.

Report #A2: Displays records with discrepant CASE, LAB, CONTRACT, and SDG number.

Report #A3: Displays missing forms.

Report #A4: Displays header records (record type of H1 or H2) with invalid fields or shifted data.

Report #A5: Displays detail records (record type of D1 or D2) with invalid fields or shifted data.

Format B Structural Defect Reports

Report #B1: Shows records with unknown or invalid record types or key fields.

Report #B2: Shows problems with Type 10 and Type 20 records.

Report #B3: Shows problems with Type 30 records.

NOTE: Because Format B diskettes do not contain "SDG Number" in the raw data, the SDG number may not be available for display in certain report headers.

Technical Defect Report Package

The Technical Defect Reports apply to data accuracy and validation criteria contractually specified for CLP Routine Analytical Services analyses. Each data reporting form is checked for completeness and data accuracy; and data values are checked to determine if they are within contract limits and ranges.

The Technical Defect Report package consists of a series of tools to aid in checking a data package.

Screening Package Summary Information - provides "at-a-glance" identification of the OCCS screening package. Lists SDG number, Case number, lab name, contract number, Region, data receipt date, and diskette format, and provides spaces for screening information.

Lab Receipt Date Check Report - displays discrepant lab receipt dates across fractions by sample. This report alerts users to a potential problem and is displayed only when there is more than one lab receipt date for a sample.

Defect Counts by Sample and Form - summarizes, by sample and form, the numbers of defects present in the package, and specifies the number of technical noncompliances found on each form.

Technical Defect Frequency Report - lists each technical noncompliance found in the package, its associated defect code and message, and the number of instances that it appears. Provides a percentage comparison of each defect to the number of all defects in the package.

Textual Defect Report - an easy-to-read textual listing of the defects found in the package, organized by sample fraction, sample number, and criterion. Consists of four categories of information:

- Fraction and Sample Number affected appear in a large box to facilitate locating the noncompliance.
- Identification of the criterion type under which the noncompliance falls.
- Textual explanation of the specific criterion with which the noncompliance is associated, along with the SOW reference (see Appendix C-Listing of Defect Statements).
- Detail of the form affected, suffix , sequence/CAS No., defect text, cuirrent value, correct value, comparison forms, and defect code (see Appendix B-Report Code Tables).

Forms showing defects - Sufficient data forms are reproduced to illustrate each unique defect once.

V. INSTALLING OCCS SYSTEM SOFTWARE ON YOUR PC

Before you can load CCS system software on your PC, you must have a copy of Base SAS® Software installed. The SAS® system software must be on the C: drive in a directory called C:\SAS.

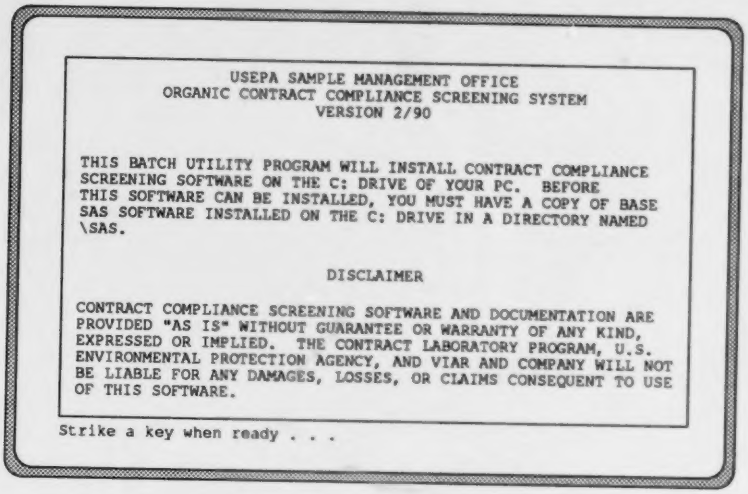
When the Base SAS® Software has been successfully installed, use the following steps to load the OCCSS software.

Step 1: Insert OCCSS software diskette into the appropriate drive.

(1) OCCSS software is provided on a 5 1/4" high density floppy diskette and must be inserted into a 5 1/4" high density drive.

Step 2: Type **A:OCCSINST** and press **ENTER** to execute the system loading procedure. The system install screen will appear.

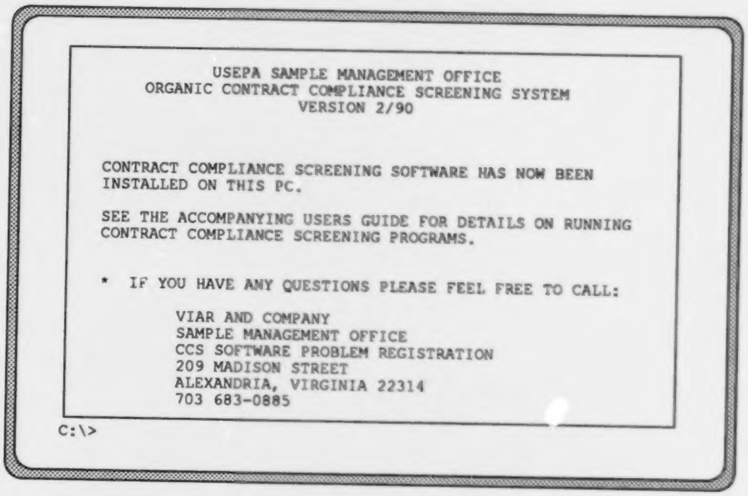
SYSTEM INSTALL SCREEN



```
              USEPA SAMPLE MANAGEMENT OFFICE
      ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                     VERSION 2/90


THIS BATCH UTILITY PROGRAM WILL INSTALL CONTRACT COMPLIANCE
SCREENING SOFTWARE ON THE C: DRIVE OF YOUR PC.  BEFORE
THIS SOFTWARE CAN BE INSTALLED, YOU MUST HAVE A COPY OF BASE
SAS SOFTWARE INSTALLED ON THE C: DRIVE IN A DIRECTORY NAMED
\SAS.

                        DISCLAIMER

CONTRACT COMPLIANCE SCREENING SOFTWARE AND DOCUMENTATION ARE
PROVIDED "AS IS" WITHOUT GUARANTEE OR WARRANTY OF ANY KIND,
EXPRESSED OR IMPLIED.  THE CONTRACT LABORATORY PROGRAM, U.S.
ENVIRONMENTAL PROTECTION AGENCY, AND VIAR AND COMPANY WILL NOT
BE LIABLE FOR ANY DAMAGES, LOSSES, OR CLAIMS CONSEQUENT TO USE
OF THIS SOFTWARE.
Strike a key when ready . . .
```

The OCCSINST procedure installs the OCCS system software on the PC and returns to DOS. After the OCCSS software has been successfully installed on your PC, the following installation confirmation screen will be displayed.

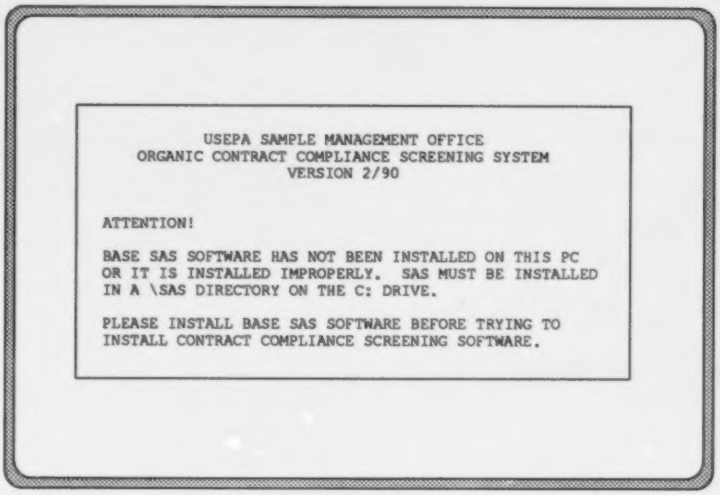
INSTALLATION CONFIRMATION SCREEN



```
              USEPA SAMPLE MANAGEMENT OFFICE
      ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                     VERSION 2/90


CONTRACT COMPLIANCE SCREENING SOFTWARE HAS NOW BEEN
INSTALLED ON THIS PC.

SEE THE ACCOMPANYING USERS GUIDE FOR DETAILS ON RUNNING
CONTRACT COMPLIANCE SCREENING PROGRAMS.


*  IF YOU HAVE ANY QUESTIONS PLEASE FEEL FREE TO CALL:

        VIAR AND COMPANY
        SAMPLE MANAGEMENT OFFICE
        CCS SOFTWARE PROBLEM REGISTRATION
        209 MADISON STREET
        ALEXANDRIA, VIRGINIA 22314
        703 683-0885
C:\>
```

(1) If Base SAS® Software is not properly installed on the PC, the system will display the following error screen and return to DOS. Begin again at <u>Step 2</u>.

INSTALL ERROR SCREEN



```
           USEPA SAMPLE MANAGEMENT OFFICE
   ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                  VERSION 2/90

ATTENTION!

BASE SAS SOFTWARE HAS NOT BEEN INSTALLED ON THIS PC
OR IT IS INSTALLED IMPROPERLY.  SAS MUST BE INSTALLED
IN A \SAS DIRECTORY ON THE C: DRIVE.

PLEASE INSTALL BASE SAS SOFTWARE BEFORE TRYING TO
INSTALL CONTRACT COMPLIANCE SCREENING SOFTWARE.
```

VI. NAVIGATING THE OCCS SYSTEM

This section provides detailed step-by-step instructions for accessing and navigating the OCCS system on your PC. *Italicized* comments provide rationale or additional explanation for the step instructions. Screens are shown for Format A. Format B screens are identical except for replacing the words "Format A" with "Format B".

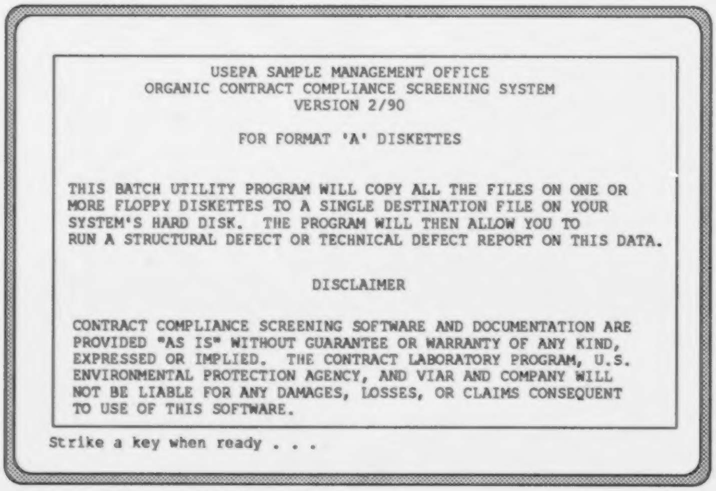
To invoke and operate the CCS system, use the following steps.

Step 1: At the C> prompt, type **EDITA** or **EDITB**. The following welcome screen will appear.

(1) When you are in DOS, the C> prompt will be on the screen.

(2) If you are processing a Format A data diskette, type EDITA; if you are processing a Format B diskette, type EDITB.

WELCOME SCREEN



```
              USEPA SAMPLE MANAGEMENT OFFICE
      ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                     VERSION 2/90

                FOR FORMAT 'A' DISKETTES


THIS BATCH UTILITY PROGRAM WILL COPY ALL THE FILES ON ONE OR
MORE FLOPPY DISKETTES TO A SINGLE DESTINATION FILE ON YOUR
SYSTEM'S HARD DISK.  THE PROGRAM WILL THEN ALLOW YOU TO
RUN A STRUCTURAL DEFECT OR TECHNICAL DEFECT REPORT ON THIS DATA.

                      DISCLAIMER

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PROVIDED "AS IS" WITHOUT GUARANTEE OR WARRANTY OF ANY KIND,
EXPRESSED OR IMPLIED.  THE CONTRACT LABORATORY PROGRAM, U.S.
ENVIRONMENTAL PROTECTION AGENCY, AND VIAR AND COMPANY WILL
NOT BE LIABLE FOR ANY DAMAGES, LOSSES, OR CLAIMS CONSEQUENT
TO USE OF THIS SOFTWARE.
Strike a key when ready . . .
```
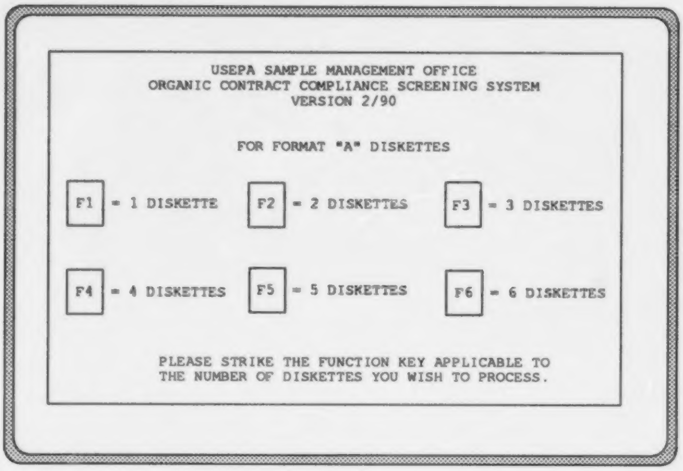

Step 2: Press any key to display the diskette loading screen shown below.

DISKETTE LOADING SCREEN



```
                 USEPA SAMPLE MANAGEMENT OFFICE
          ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                         VERSION 2/90

                   FOR FORMAT "A" DISKETTES

 F1 = 1 DISKETTE      F2 = 2 DISKETTES      F3 = 3 DISKETTES

 F4 = 4 DISKETTES     F5 = 5 DISKETTES      F6 = 6 DISKETTES

          PLEASE STRIKE THE FUNCTION KEY APPLICABLE TO
          THE NUMBER OF DISKETTES YOU WISH TO PROCESS.
```

Step 3: Press the function key to indicate the number of diskettes that contain data files for the Sample Delivery Group to be checked. The following prompt will appear:

```
PLACE DATA DISKETTE #1 IN DRIVE A

Strike a key when ready . . .
```

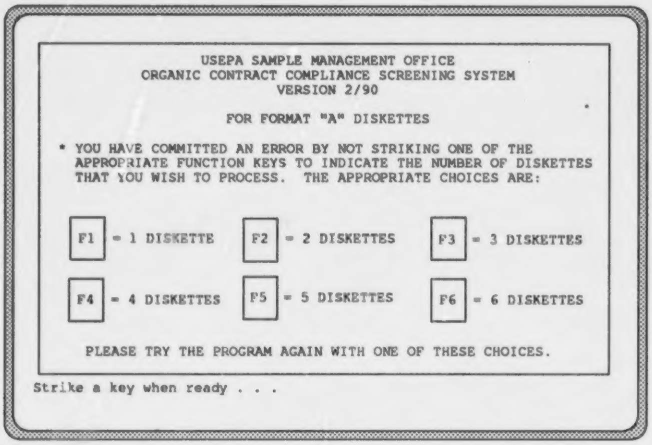
(1) Data is processed in sets of samples called Sample Delivery Groups (SDG), as defined in the RAS Statement of Work.

(2) If all data files for the SDG are on one diskette, press the F1 function key; if all data files for the SDG are on two diskettes, then press the F2 function key, etc.

(3) Six diskettes are the maximum number which can be loaded for one SDG. If files for one SDG are on more than six diskettes, you must copy the files onto six or fewer diskettes before running this system.

(4) If an invalid key (i.e., one which is not on the displayed menu) is pressed, the following error screen is displayed.

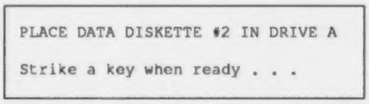
DISKETTE LOADING ERROR SCREEN



```
                  USEPA SAMPLE MANAGEMENT OFFICE
            ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                          VERSION 2/90

                     FOR FORMAT "A" DISKETTES

 * YOU HAVE COMMITTED AN ERROR BY NOT STRIKING ONE OF THE
   APPROPRIATE FUNCTION KEYS TO INDICATE THE NUMBER OF DISKETTES
   THAT YOU WISH TO PROCESS.  THE APPROPRIATE CHOICES ARE:

 F1 = 1 DISKETTE        F2 = 2 DISKETTES        F3 = 3 DISKETTES

 F4 = 4 DISKETTES       F5 = 5 DISKETTES        F6 = 6 DISKETTES

      PLEASE TRY THE PROGRAM AGAIN WITH ONE OF THESE CHOICES.
Strike a key when ready . . .
```

If this screen appears, press any key to return to the menu selection screen and begin again at Step 3.

Step 4: Insert data diskette #1 into the appropriate drive and press any key. All files with valid names (i.e., contract-specified names) will be copied to the hard disk and concatenated into one master raw data file. When all diskette files on diskette #1 are copied, if the function key for two or more diskettes was selected, the prompt in Step 3 will repeat for the second and any additional diskettes:

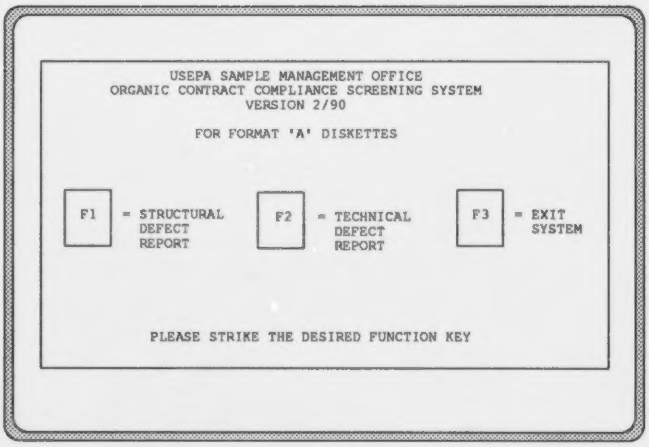


```
PLACE DATA DISKETTE #2 IN DRIVE A

Strike a key when ready . . .
```

(1) As files are copied from the data diskettes to the hard drive, the file names will appear on the screen.

Repeat Step 4 for additional diskettes. After all diskette files are copied to the hard disk, the report selection menu screen shown below will be displayed.

REPORT SELECTION MENU SCREEN



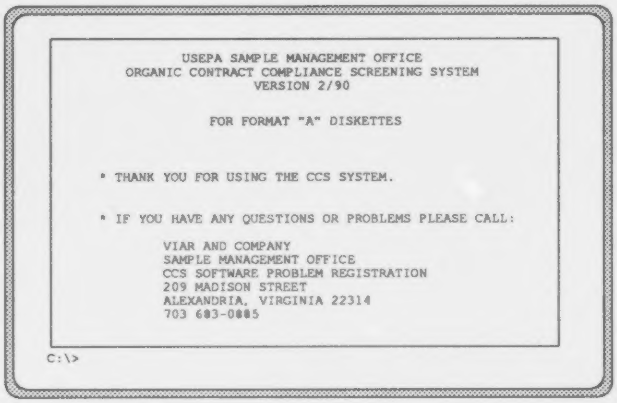
```
                  USEPA SAMPLE MANAGEMENT OFFICE
            ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                          VERSION 2/90

                     FOR FORMAT 'A' DISKETTES


 F1 = STRUCTURAL         F2 = TECHNICAL          F3 = EXIT
      DEFECT                  DEFECT                  SYSTEM
      REPORT                  REPORT


              PLEASE STRIKE THE DESIRED FUNCTION KEY
```

Step 5: Press the **F1** function key to run the Structural Defect Report or press the **F2** function key to run the Technical Defect Report.

(1) Detailed instructions for running reports are contained in Section VII of this manual.

Step 6: When all desired reports have been run, press the **F3** function key to exit the system. The system will display the following exit screen and return control to DOS.

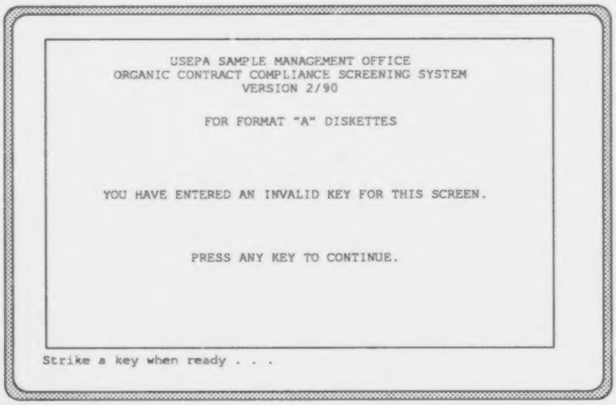
EXIT SCREEN



```
                 USEPA SAMPLE MANAGEMENT OFFICE
            ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                          VERSION 2/90

                   FOR FORMAT "A" DISKETTES


      * THANK YOU FOR USING THE CCS SYSTEM.

      * IF YOU HAVE ANY QUESTIONS OR PROBLEMS PLEASE CALL:

              VIAR AND COMPANY
              SAMPLE MANAGEMENT OFFICE
              CCS SOFTWARE PROBLEM REGISTRATION
              209 MADISON STREET
              ALEXANDRIA, VIRGINIA 22314
              703 683-0885

C:\>
```

(1) If an invalid key is pressed, i.e., one which is not on the displayed menu, the following error screen is displayed.

REPORT SELECTION ERROR SCREEN



```
                 USEPA SAMPLE MANAGEMENT OFFICE
            ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                          VERSION 2/90

                   FOR FORMAT "A" DISKETTES



         YOU HAVE ENTERED AN INVALID KEY FOR THIS SCREEN.


                   PRESS ANY KEY TO CONTINUE.



Strike a key when ready . . .
```

If this screen appears, press any key to return to the report selection menu screen and begin again at Step 5.

VII. RUNNING OCCSS REPORTS

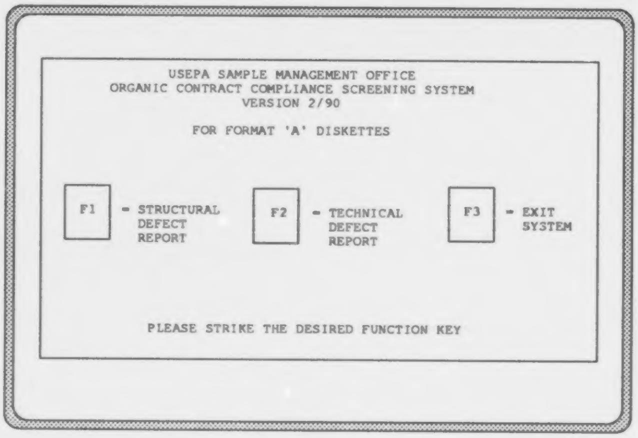
This section provides detailed step-by-step instructions for running OCCS reports on your PC. *Italicized* comments provide rationale or additional explanation for the step instructions.

The Structural Defect Reports should be run first since these reports identify basic structural problems with the files and data that may cause ambiguities in the Technical Defect Reports. IMPORTANT: Any problems shown in the Structural Defect Reports must be corrected before the Technical Defect Report Package is executed, to avoid ambiguities in the Technical Defect Report.

To generate OCCSS reports, use the following steps.

Step 1: Invoke the CCS system and load SDG data diskettes per Steps 1-4 given in Section VI-Navigating the CCS System. The Report Selection Menu will now be on the screen.

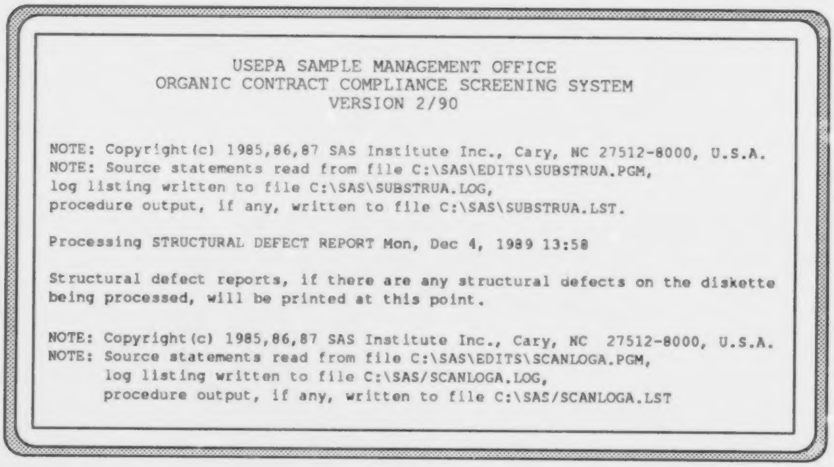
REPORT SELECTION MENU SCREEN



```
                USEPA SAMPLE MANAGEMENT OFFICE
          ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                        VERSION 2/90

                  FOR FORMAT 'A' DISKETTES


 F1  - STRUCTURAL      F2  - TECHNICAL      F3  - EXIT
       DEFECT                DEFECT               SYSTEM
       REPORT                REPORT


              PLEASE STRIKE THE DESIRED FUNCTION KEY
```

Step 2: To run the **Structural Defect Report** from the Report Selection Menu, press the **F1** function key. The following statements will be displayed while the system is executing the program.

STRUCTURAL DEFECT REPORT EXECUTION STATEMENTS



```
                USEPA SAMPLE MANAGEMENT OFFICE
          ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                         VERSION 2/90

NOTE: Copyright(c) 1985,86,87 SAS Institute Inc., Cary, NC 27512-8000, U.S.A.
NOTE: Source statements read from file C:\SAS\EDITS\SUBSTRUA.PGM,
log listing written to file C:\SAS\SUBSTRUA.LOG,
procedure output, if any, written to file C:\SAS\SUBSTRUA.LST.

Processing STRUCTURAL DEFECT REPORT Mon, Dec 4, 1989 13:58

Structural defect reports, if there are any structural defects on the diskette
being processed, will be printed at this point.

NOTE: Copyright(c) 1985,86,87 SAS Institute Inc., Cary, NC  27512-8000, U.S.A.
NOTE: Source statements read from file C:\SAS\EDITS\SCANLOGA.PGM,
      log listing written to file C:\SAS/SCANLOGA.LOG,
      procedure output, if any, written to file C:\SAS/SCANLOGA.LST
```

VII. RUNNING OCCSS REPORTS

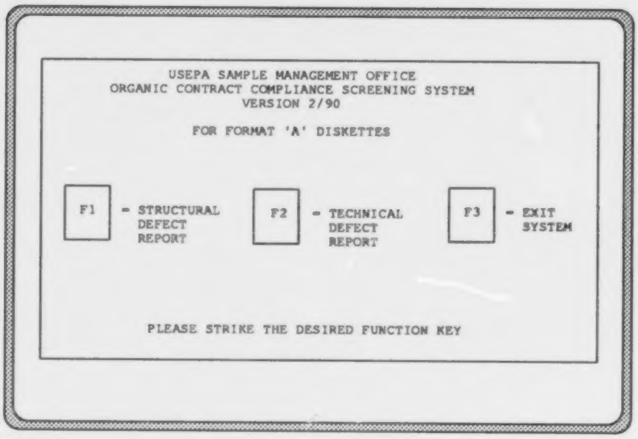
This section provides detailed step-by-step instructions for running OCCS reports on your PC. *Italicized* comments provide rationale or additional explanation for the step instructions.

The Structural Defect Reports should be run first since these reports identify basic structural problems with the files and data that may cause ambiguities in the Technical Defect Reports. IMPORTANT: Any problems shown in the Structural Defect Reports must be corrected before the Technical Defect Report Package is executed, to avoid ambiguities in the Technical Defect Report.

To generate OCCSS reports, use the following steps.

Step 1: Invoke the CCS system and load SDG data diskettes per Steps 1-4 given in Section VI-Navigating the CCS System. The Report Selection Menu will now be on the screen.

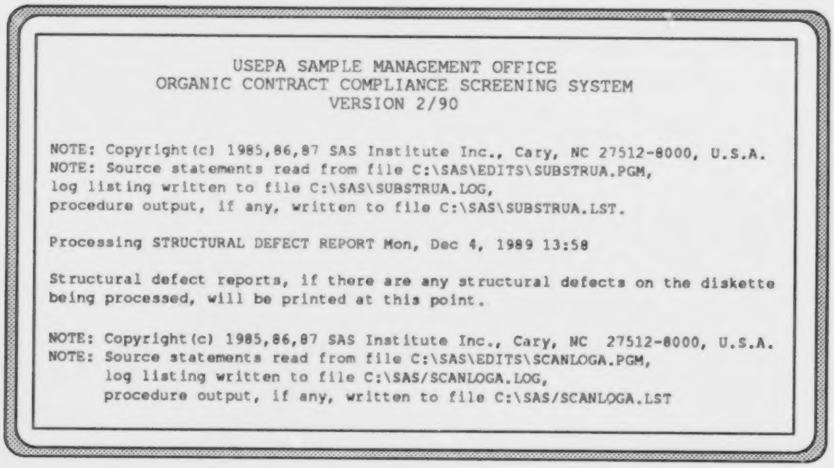
REPORT SELECTION MENU SCREEN



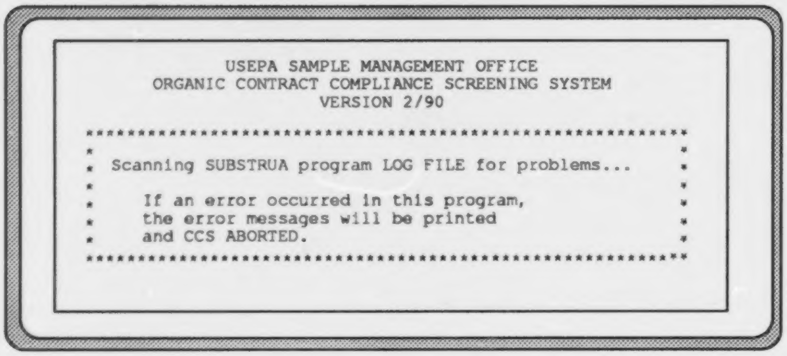
```
              USEPA SAMPLE MANAGEMENT OFFICE
        ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                      VERSION 2/90

                FOR FORMAT 'A' DISKETTES

 F1  - STRUCTURAL       F2  - TECHNICAL       F3  - EXIT
       DEFECT                 DEFECT                SYSTEM
       REPORT                 REPORT

            PLEASE STRIKE THE DESIRED FUNCTION KEY
```

Step 2: To run the **Structural Defect Report** from the Report Selection Menu, press the **F1** function key. The following statements will be displayed while the system is executing the program.

STRUCTURAL DEFECT REPORT EXECUTION STATEMENTS



```
                 USEPA SAMPLE MANAGEMENT OFFICE
           ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                          VERSION 2/90

NOTE: Copyright(c) 1985,86,87 SAS Institute Inc., Cary, NC 27512-8000, U.S.A.
NOTE: Source statements read from file C:\SAS\EDITS\SUBSTRUA.PGM,
log listing written to file C:\SAS\SUBSTRUA.LOG,
procedure output, if any, written to file C:\SAS\SUBSTRUA.LST.

Processing STRUCTURAL DEFECT REPORT Mon, Dec 4, 1989 13:58

Structural defect reports, if there are any structural defects on the diskette
being processed, will be printed at this point.

NOTE: Copyright(c) 1985,86,87 SAS Institute Inc., Cary, NC  27512-8000, U.S.A.
NOTE: Source statements read from file C:\SAS\EDITS\SCANLOGA.PGM,
      log listing written to file C:\SAS/SCANLOGA.LOG,
      procedure output, if any, written to file C:\SAS/SCANLOGA.LST
```



```
                 USEPA SAMPLE MANAGEMENT OFFICE
          ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                         VERSION 2/90

*******************************************************
*                                                     *
*  Scanning SUBSTRUA program LOG FILE for problems... *
*                                                     *
*     If an error occurred in this program,           *
*     the error messages will be printed              *
*     and CCS ABORTED.                                *
*******************************************************
```

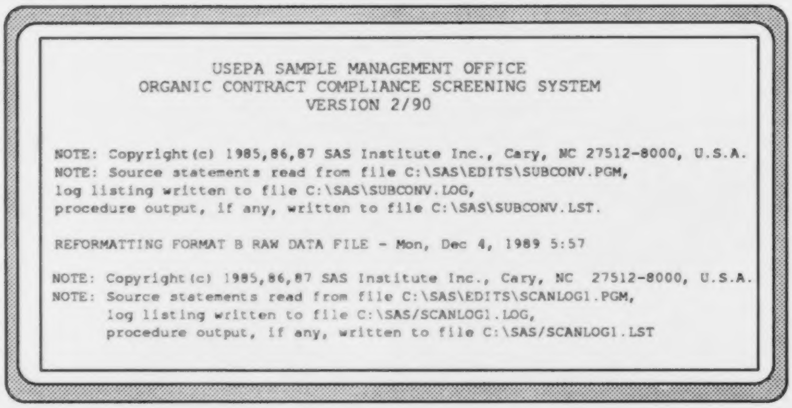
The defect reports will be printed to your printer. When the reports are completed, the OCCS system will return to the Report Selection Menu. Here, you may again select either type of report or exit the system.

(1) If you are running a report from a Format A diskette, then the SUBSTRUA and SCANLOGA programs will execute (as shown here). If you are running a report from a Format B diskettte, then the SUBSTRUB and SCANLOGB programs will execute.

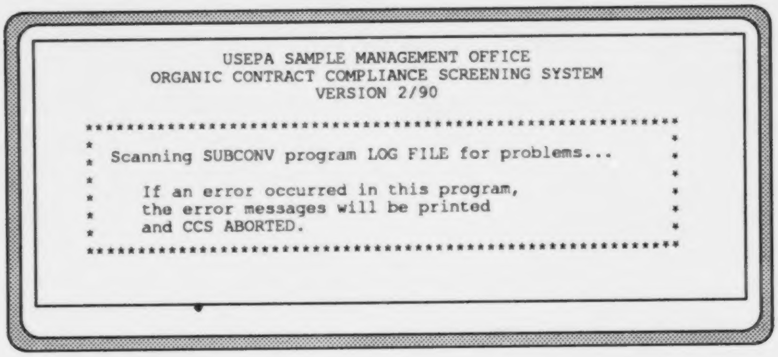
(2) If a problem is detected in the SUBSTRUA or SUBSTRUB program during the SCANLOG process, a specific error message will be generated by the printer and OCCSS will be aborted. In this event, contact CCS Software Problem Registration at 703/683-0885.

<u>Step 3</u>: To run the **Technical Defect Report** package from the Report Selection Menu, press the **F2** function key. The following statements will be displayed as each part of the system executes.

SUBCONV PROGRAM EXECUTION STATEMENTS



```
                 USEPA SAMPLE MANAGEMENT OFFICE
          ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                         VERSION 2/90

NOTE: Copyright(c) 1985,86,87 SAS Institute Inc., Cary, NC 27512-8000, U.S.A.
NOTE: Source statements read from file C:\SAS\EDITS\SUBCONV.PGM,
log listing written to file C:\SAS\SUBCONV.LOG,
procedure output, if any, written to file C:\SAS\SUBCONV.LST.

REFORMATTING FORMAT B RAW DATA FILE - Mon, Dec 4, 1989 5:57

NOTE: Copyright(c) 1985,86,87 SAS Institute Inc., Cary, NC  27512-8000, U.S.A.
NOTE: Source statements read from file C:\SAS\EDITS\SCANLOG1.PGM,
      log listing written to file C:\SAS/SCANLOG1.LOG,
      procedure output, if any, written to file C:\SAS/SCANLOG1.LST
```

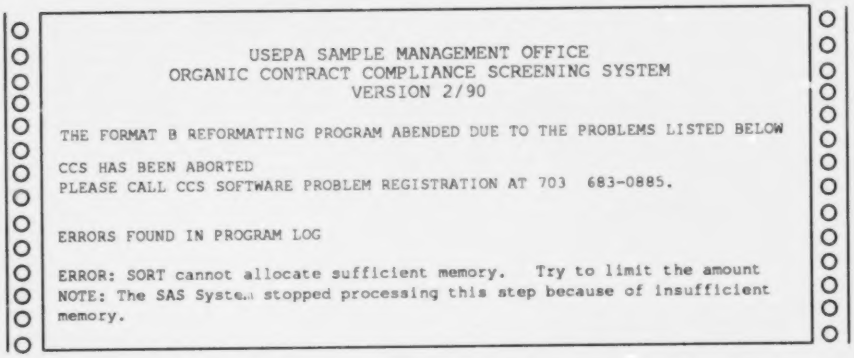


```
               USEPA SAMPLE MANAGEMENT OFFICE
        ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                       VERSION 2/90

*********************************************************
*                                                       *
*  Scanning SUBCONV program LOG FILE for problems...    *
*                                                       *
*     If an error occurred in this program,             *
*     the error messages will be printed                *
*     and CCS ABORTED.                                  *
*********************************************************
```

(1) First, if the data is in Format B it is restructured into Format A for editing, through the SUBCONV program. If a problem is detected in the SUBCONV program during the SCANLOG process, a specific error message will be generated by the printer and OCCSS will be aborted. In this event, contact CCS Softweare Problem Registration at 703/683-0885.

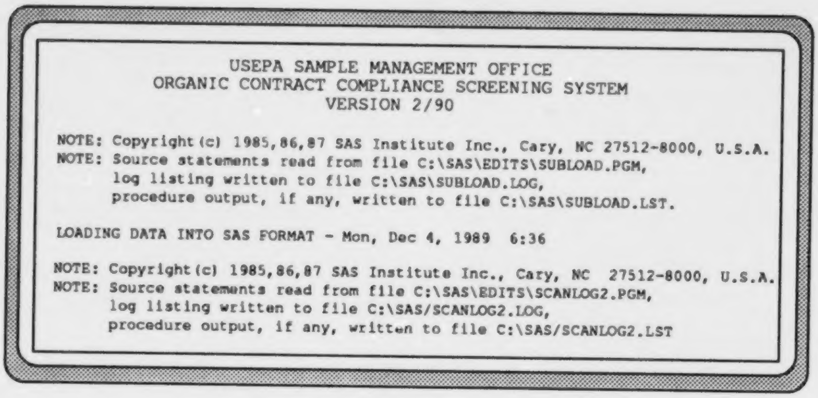
As an example, if there is insufficient memory on your PC to run the reformatting program, the following error message will be generated by the printer:

SUBCONV PROGRAM ERROR MESSAGE

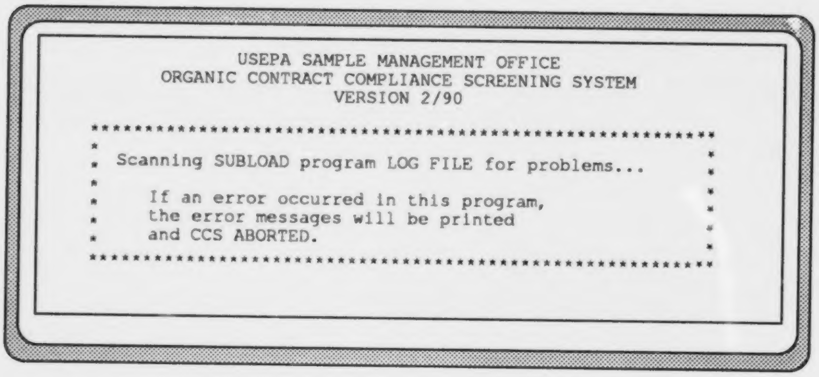


```
                 USEPA SAMPLE MANAGEMENT OFFICE
          ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                          VERSION 2/90

THE FORMAT B REFORMATTING PROGRAM ABENDED DUE TO THE PROBLEMS LISTED BELOW

CCS HAS BEEN ABORTED
PLEASE CALL CCS SOFTWARE PROBLEM REGISTRATION AT 703  683-0885.

ERRORS FOUND IN PROGRAM LOG

ERROR: SORT cannot allocate sufficient memory.   Try to limit the amount
NOTE: The SAS System stopped processing this step because of insufficient
memory.
```

SUBLOAD PROGRAM EXECUTION STATEMENTS



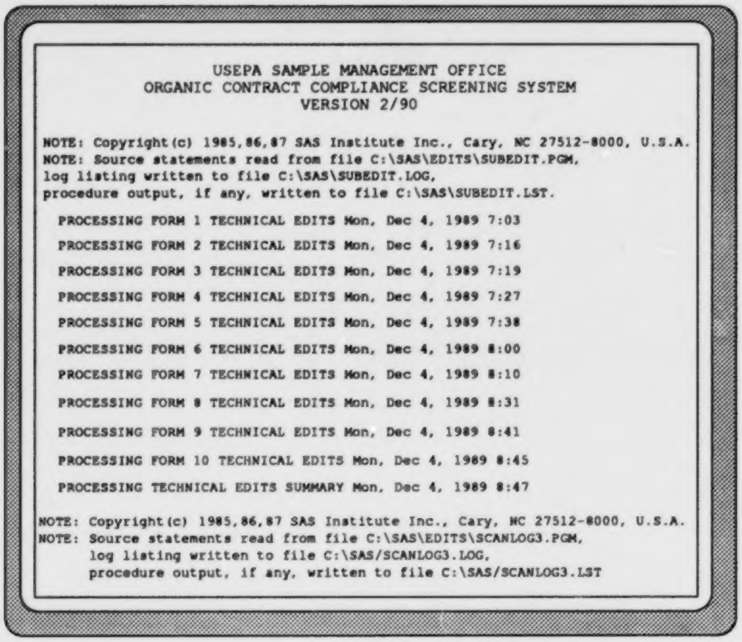
```
                USEPA SAMPLE MANAGEMENT OFFICE
          ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                         VERSION 2/90

NOTE: Copyright(c) 1985,86,87 SAS Institute Inc., Cary, NC 27512-8000, U.S.A.
NOTE: Source statements read from file C:\SAS\EDITS\SUBLOAD.PGM,
      log listing written to file C:\SAS\SUBLOAD.LOG,
      procedure output, if any, written to file C:\SAS\SUBLOAD.LST.

LOADING DATA INTO SAS FORMAT - Mon, Dec 4, 1989  6:36

NOTE: Copyright(c) 1985,86,87 SAS Institute Inc., Cary, NC  27512-8000, U.S.A.
NOTE: Source statements read from file C:\SAS\EDITS\SCANLOG2.PGM,
      log listing written to file C:\SAS/SCANLOG2.LOG,
      procedure output, if any, written to file C:\SAS/SCANLOG2.LST
```



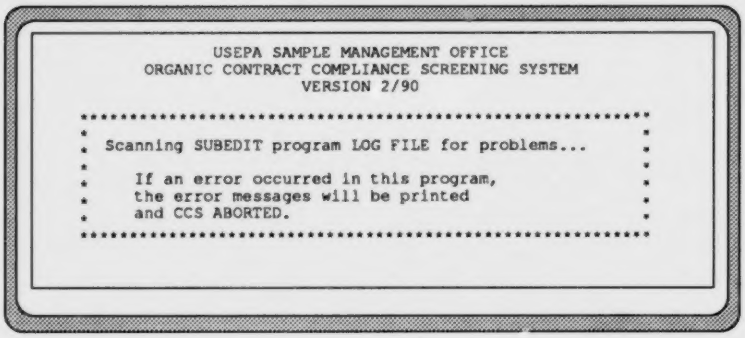
```
                USEPA SAMPLE MANAGEMENT OFFICE
          ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                         VERSION 2/90

    **********************************************************
    *                                                        *
    *  Scanning SUBLOAD program LOG FILE for problems...     *
    *                                                        *
    *    If an error occurred in this program,               *
    *    the error messages will be printed                  *
    *    and CCS ABORTED.                                    *
    *                                                        *
    **********************************************************
```

(2) The data is loaded into a SAS® database and a series of edits are run. The program which loads data into the SAS® database is the SUBLOAD program. If a problem is detected in the SUBLOAD program during the SCANLOG process, a specific error message will be generated by the printer and OCCSS will be aborted. In this event, contact CCS Software Problem Registration at 703/683-0885.

SUBEDIT PROGRAM EXECUTION STATEMENTS



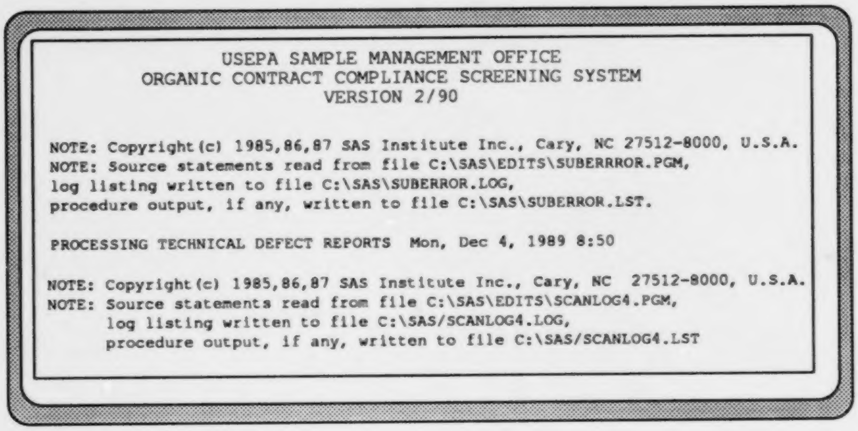
```
               USEPA SAMPLE MANAGEMENT OFFICE
          ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                        VERSION 2/90

NOTE: Copyright(c) 1985,86,87 SAS Institute Inc., Cary, NC 27512-8000, U.S.A.
NOTE: Source statements read from file C:\SAS\EDITS\SUBEDIT.PGM,
log listing written to file C:\SAS\SUBEDIT.LOG,
procedure output, if any, written to file C:\SAS\SUBEDIT.LST.

  PROCESSING FORM 1 TECHNICAL EDITS Mon, Dec 4, 1989 7:03

  PROCESSING FORM 2 TECHNICAL EDITS Mon, Dec 4, 1989 7:16

  PROCESSING FORM 3 TECHNICAL EDITS Mon, Dec 4, 1989 7:19

  PROCESSING FORM 4 TECHNICAL EDITS Mon, Dec 4, 1989 7:27

  PROCESSING FORM 5 TECHNICAL EDITS Mon, Dec 4, 1989 7:38

  PROCESSING FORM 6 TECHNICAL EDITS Mon, Dec 4, 1989 8:00

  PROCESSING FORM 7 TECHNICAL EDITS Mon, Dec 4, 1989 8:10

  PROCESSING FORM 8 TECHNICAL EDITS Mon, Dec 4, 1989 8:31

  PROCESSING FORM 9 TECHNICAL EDITS Mon, Dec 4, 1989 8:41

  PROCESSING FORM 10 TECHNICAL EDITS Mon, Dec 4, 1989 8:45

  PROCESSING TECHNICAL EDITS SUMMARY Mon, Dec 4, 1989 8:47

NOTE: Copyright(c) 1985,86,87 SAS Institute Inc., Cary, NC 27512-8000, U.S.A.
NOTE: Source statements read from file C:\SAS\EDITS\SCANLOG3.PGM,
      log listing written to file C:\SAS/SCANLOG3.LOG,
      procedure output, if any, written to file C:\SAS/SCANLOG3.LST
```



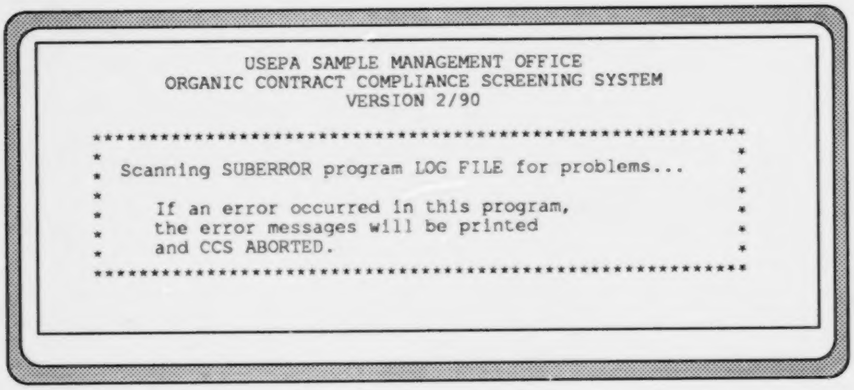
```
               USEPA SAMPLE MANAGEMENT OFFICE
          ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                        VERSION 2/90

     ***************************************************
     *                                                 *
     *  Scanning SUBEDIT program LOG FILE for problems...  *
     *                                                 *
     *     If an error occurred in this program,       *
     *     the error messages will be printed          *
     *     and CCS ABORTED.                            *
     ***************************************************
```

(3) The SUBEDIT program runs edits on each of the ten organic data forms. If a problem is detected during the SCANLOG process, a specific error message will be generated by the printer and OCCSS will be aborted. In this event, contact CCS Software Problem Registration at 703/ 683-0885.

SUBERROR PROGRAM EXECUTION STATEMENTS



```
                USEPA SAMPLE MANAGEMENT OFFICE
          ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                        VERSION 2/90

NOTE: Copyright(c) 1985,86,87 SAS Institute Inc., Cary, NC 27512-8000, U.S.A.
NOTE: Source statements read from file C:\SAS\EDITS\SUBERRROR.PGM,
log listing written to file C:\SAS\SUBERROR.LOG,
procedure output, if any, written to file C:\SAS\SUBERROR.LST.

PROCESSING TECHNICAL DEFECT REPORTS  Mon, Dec 4, 1989 8:50

NOTE: Copyright(c) 1985,86,87 SAS Institute Inc., Cary, NC  27512-8000, U.S.A.
NOTE: Source statements read from file C:\SAS\EDITS\SCANLOG4.PGM,
      log listing written to file C:\SAS/SCANLOG4.LOG,
      procedure output, if any, written to file C:\SAS/SCANLOG4.LST
```



```
                USEPA SAMPLE MANAGEMENT OFFICE
          ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                        VERSION 2/90

    ***********************************************************
    *                                                         *
    *  Scanning SUBERROR program LOG FILE for problems...     *
    *                                                         *
    *     If an error occurred in this program,               *
    *     the error messages will be printed                  *
    *     and CCS ABORTED.                                    *
    ***********************************************************
```

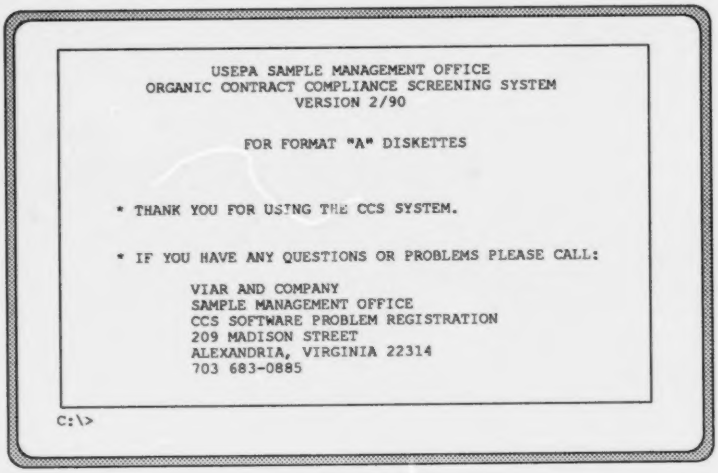
(4) After the edit programs are completed, an error consolidation program, SUBERROR, is run. If a problem is detected in the SUBERROR program during the SCANLOG process, a specific error message will be generated by the printer and OCCSS will be aborted. In this event, contact OCCS Software Problem Registration at 703/683-0885.

The Technical Defect Reports will be directed to the printer. When the reports are completed, the CCS system will return to the Report Selection Menu. Here, you may again select either type of report or exit the system.

(5) After all programs have successfully executed, the technical defect reports are generated.

Step 4: When all desired reports have been run, press the **F3** function key to exit the system. The system will display the following exit screen and return control to DOS.

EXIT SCREEN



```
              USEPA SAMPLE MANAGEMENT OFFICE
      ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                      VERSION 2/90

                FOR FORMAT "A" DISKETTES


 * THANK YOU FOR USING THE CCS SYSTEM.


 * IF YOU HAVE ANY QUESTIONS OR PROBLEMS PLEASE CALL:

         VIAR AND COMPANY
         SAMPLE MANAGEMENT OFFICE
         CCS SOFTWARE PROBLEM REGISTRATION
         209 MADISON STREET
         ALEXANDRIA, VIRGINIA 22314
         703 683-0885

C:\>
```

VIII. INPUT DATA REQUIREMENTS

Among other items, OCCSS software has been written assuming the following Statement of Work specifications.

Data Field Justification

This software will produce ambiguous results if all data fields are not properly justified (i.e., numeric fields right justified and character fields left justified).

Format B Requirements

The OCCSS program that converts Format B data to Format A data for editing assumes that the Format B records are correctly formatted and follow all SOW specifications. Adherence to the following specifications is crucial to successful conversion.

1. Each production run must begin with a correctly formatted type 10 header.
2. Each EPA sample must be associated (on a type 23 record) with a unique blank file ID and a calibration file ID.
3. Blanks must be reported uniquely (e.g., PBLK1, PBLK2)
4. REJ, NAR, and BDL qualifiers must be reported for each and every analyte to which they apply.
5. For a production run for VOA, the matrix and the level must be the same for all samples in that run.
6. There must be GC/MS data for a sufficient number of calibration points applicable to Forms 5 and 6.
7. For a given fraction, there must be data for each and every required surrogate compound with QC value equals 's' (QC value is at column 60 on type 30 record).
8. For a given fraction, there must be each and every required internal standard compound with result qualifier equals 'STD'.

9. Sample qualifier 'SPL' must be used only for a true analytical split. When the splits are combined, the sample must be complete without any duplication or redundancy.

10. Suffix generation:

    (i) If a sample is rerun and the original has a sample qualifier 'REJ' and the rerun has a label REX/REN, then the original injection will be rejected and the second injection will not have any RE suffix.

    (ii) If a sample is rerun and the original has no label and the rerun has a label REX/RIN, then the original injection will not have any suffix, but the second injection will have an RE suffix.

    (iii) If the sample is rerun and the original has no label and the second injection has a label SRX/SRN, then the second injection will get a 'DL' or 'RE' suffix depending on whether the two injections have the same dilution.

Any other interpretation of SOW specifications by a user of this software invalidates the use of this software.

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Appendix A
EXAMPLES OF REPORTS

EXAMPLE OF STRUCTURAL DEFECT REPORTS

```
                                    S A M P L E   M A N A G E M E N T   O F F I C E
                         D I S K E T T E   S T R U C T U R E   A S S E S S M E N T   R E P O R T
                                         FORMAT (A) STRUCTURAL DEFECT REPORT (#A1)
                                              RECORDS WITH INVALID KEY FIELDS

                                                LAB: XXXX      SDG: YYYY


RELATIVE FILE POSITION: RECORD #1
                                                                                                5.0MLGG221        LOW02
A
----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8----+----9----+----0----+----1----+----2
AAABBCC
                         CODE             PROBLEM
                          A               INVALID FORM NUMBER


RELATIVE FILE POSITION: RECORD #2

1                         10  U
----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8----+----9----+----0----+----1----+----2
AAABBCC
                         CODE             PROBLEM
                          A               INVALID FORM NUMBER


RELATIVE FILE POSITION: RECORD #4

1A                        10  U
----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8----+----9----+----0----+----1----+----2
AAABBCC
                         CODE             PROBLEM
                          C               INVALID RECORD TYPE


RELATIVE FILE POSITION: RECORD #5

1A                       U10  U
----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8----+----9----+----0----+----1----+----2
AAABBCC
                         CODE             PROBLEM
                          C               INVALID RECORD TYPE
```

```
                    S A M P L E   M A N A G E M E N T   O F F I C E        15:39 THURSDAY, APRIL 6, 1989    1
              D I S K E T T E   S T R U C T U R E   A S S E S S M E N T   R E P O R T
                              FORMAT (A) STRUCTURAL DEFECT REPORT (#A2)
                             DISCREPANT CASE-LAB-CONTRACT-SDG INFORMATION

                                     LAB: XXXX     SDG: YYYY

OBS   FORM   SUFFIX   SDG   CASE   LAB    CONTRACT   ERROR                                  CURRENT     INITIAL
                                   CODE              MESSAGE                                VALUE       VALUE

 1     1A     AD                             68-W8-   CASE NUMBER MISSING OR NOT UNIQUE
 2     1E     AC                             68-W8-   CASE NUMBER MISSING OR NOT UNIQUE
 3     3A     AB                             68-W8-   CASE NUMBER MISSING OR NOT UNIQUE
 4     1E     AC                             68-W8-   CONTRACT NUMBER MISSING OR NOT UNIQUE
 5     8A     1A                             68-88-   CONTRACT NUMBER MISSING OR NOT UNIQUE
 6     1A     AD                             68-W8-   LAB CODE MISSING OR NOT UNIQUE
 7     1E     AC                             68-W8-   LAB CODE MISSING OR NOT UNIQUE
 8     1A     AC                             68-W8-   SDG NUMBER MISSING OR NOT UNIQUE
```

```
          S A M P L E   M A N A G E M E N T   O F F I C E         15:39 THURSDAY, APRIL 6, 1989    2
D I S K E T T E   S T R U C T U R E   A S S E S S M E N T   R E P O R T
                  FORMAT (A) STRUCTURAL DEFECT REPORT (#A3)
                             MISSING FORMS REPORT

                          LAB: XXXX     SDG: YYYY


               OBS    ERROR MESSAGE

                1     FORM 1A FOUND, NO FORMS FOR 5A/6A
                2     FORM 5B/6B FOUND, NO FORMS FOR 1B/1C
```

```
                              S A M P L E  M A N A G E M E N T  O F F I C E
                         D I S K E T T E  S T R U C T U R E  A S S E S S M E N T  R E P O R T
                                 FORMAT (A) STRUCTURAL DEFECT REPORT (#A4)
                                        DISCREPANT HEADER RECORDS

                                        LAB: XXXX     SDG: YYYY


HEADER RECORD FOR FORM: 1A  SUFFIX: AB

1A                                                                                       <=== COLUMNS 1-77
----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+--

AAAAA............BBBBB.................DDDEEEEEEEE..HHHHHHHH....NNNNNNNN................................
R2616-02       5.0MLG    G222    LOW02/15/89  02/2     5/89CAP 1.0 UG/L
--8----+----9----+----0----+----1----+----2----+----3----+----4-----+----5----+----6----+----7----+----8  <=== COLUMNS 78-180
                                         CODE   PROBLEM                                   CURRENT VALUE OF FIELD

                                          A     INVALID MATRIX                                     R2616
                                          B     INVALID SAMPLE WEIGHT/VOLUME                       0MLG
                                          D     INVALID LEVEL                                      /15
                                          E     PROBABLE SHIFT IN DATE RECEIVED FIELD              /89  02/
                                          H     PROBABLE SHIFT IN DATE ANALYZED FIELD              5/89
                                          N     INVALID DILUTION FACTOR                            1.0 UG/L
                              S A M P L E   M A N A G E M E N T   O F F I C E                                1
                        D I S K E T T E   S T R U C T U R E   A S S E S S M E N T   R E P O R T
                                 FORMAT (A) STRUCTURAL DEFECT REPORT (#A5)
                                        DISCREPANT DETAIL RECORDS

                                          LAB:            SDG:

------------------------------------------------------------ FORM=6A ---------------------------------------------------------

          OBS     FORM     SUFFIX     RECORD                 ERROR MESSAGE                  CURRENT     CORRECT
                                      TYPE                                                  VALUE       VALUE

           1       6A        AA         D1       INSUFFICIENT DETAIL RECORDS FOR FORM        34       37 RECORDS
           2       6A        AB         D1       INSUFFICIENT DETAIL RECORDS FOR FORM        34       37 RECORDS
           3       6A        AC         D1       INSUFFICIENT DETAIL RECORDS FOR FORM        34       37 RECORDS

------------------------------------------------------------ FORM=7A ---------------------------------------------------------

          OBS     FORM     SUFFIX     RECORD                 ERROR MESSAGE                  CURRENT     CORRECT
                                      TYPE                                                  VALUE       VALUE

           4       7A        AA         D1       INSUFFICIENT DETAIL RECORDS FOR FORM        34       37 RECORDS
           5       7A        AB         D1       INSUFFICIENT DETAIL RECORDS FOR FORM        34       37 RECORDS
           6       7A        AC         D1       INSUFFICIENT DETAIL RECORDS FOR FORM        34       37 RECORDS
           7       7A        AD         D1       INSUFFICIENT DETAIL RECORDS FOR FORM        34       37 RECORDS
           8       7A        AE         D1       INSUFFICIENT DETAIL RECORDS FOR FORM        34       37 RECORDS
```

```
                                         S A M P L E  M A N A G E M E N T  O F F I C E          14:50 FRIDAY, APRIL 7, 1989    6
                                 D I S K E T T E  S T R U C T U R E  A S S E S S M E N T  R E P O R T
                                             FORMAT (B) STRUCTURAL DEFECT REPORT (#B1)
                                                  UNKNOWN RECORD TYPES

                                                LAB:  LLLLL       SDG:  TTTTT



   ** 12 21  8 27 GC/MS                   ** 12 21                     0002EF5
----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8
AA


                                       CODE   ERROR MESSAGE                     CURRENT VALUE

                                         A    NON-SOW RECORD TYPE
```

```
                           S A M P L E   M A N A G E M E N T   O F F I C E           14:50 FRIDAY, APRIL 7, 1989    8
                     D I S K E T T E   S T R U C T U R E   A S S E S S M E N T   R E P O R T
                                 FORMAT (B) STRUCTURAL DEFECT REPORT (#B2)
                                          TYPE 20 DETAIL RECORDS

                                      LAB:  LLLLL       SDG:  TTTTT

OBS   SAMPLE   QC     SAMP                 ERROR                   COMPARISON   COMPARISON   FRACT   RUN      HEX REC   REF REC
               QUAL   QUAL                                         VALUE 1      VALUE 2              NUMBER   NUMBER    NUMBER

49    VBLK     LRB           REDUNDANT SAMPLES WITHIN A FRACTION                               V       1
50    VBLK     LRB           REDUNDANT SAMPLES WITHIN A FRACTION                               V       1
51                    DIL    UNKNOWN SQ QUALIFIER                     DIL           ?          P       5
```

```
                         S A M P L E   M A N A G E M E N T   O F F I C E            14:50 FRIDAY, APRIL 7, 1989    9
                  D I S K E T T E   S T R U C T U R E   A S S E S S M E N T   R E P O R T
                            FORMAT (B) STRUCTURAL DEFECT REPORT(#B3)
                                    TYPE 30 DETAIL RECORDS

                                 LAB:  LLLLL       SDG:  TTTTT

OBS SAMPLE QC   SAMP CAS_NO                    ERROR                    COMPARISON COMPARISON FRACTION RUN    HEX REC REF REC
           QUAL QUAL                                                    VALUE 1    VALUE 2             NUMBER NUMBER  NUMBER

  1             SPL  1770805  INCONSISTANT RESULTS FOR SPLIT SAMPLES  188.6       128.89       P        4
  2             SPL  50293    INCONSISTANT RESULTS FOR SPLIT SAMPLES  212.41      257.83       P        4
  3             SPL  5103742  INCONSISTANT RESULTS FOR SPLIT SAMPLES  73.97       69.153       P        4
  4             SPL  53494705 INCONSISTANT RESULTS FOR SPLIT SAMPLES  9.4861      29.134       P        4
  5             SPL  58899    INCONSISTANT RESULTS FOR SPLIT SAMPLES  10.672      13.772       P        4
  6             SPL  1770805  INCONSISTANT RESULTS FOR SPLIT SAMPLES  139.39      116.01       P        4
  7             SPL  1770805  INCONSISTANT RESULTS FOR SPLIT SAMPLES  1.0875      0.96287      P        3
  8             SPL  1770805  INCONSISTANT RESULTS FOR SPLIT SAMPLES  2.8999      0.80428      P        3
  9             SPL  1770805  INCONSISTANT RESULTS FOR SPLIT SAMPLES  0.90623     0.80994      P        3
 10             SPL  1770805  INCONSISTANT RESULTS FOR SPLIT SAMPLES  0.96287     0.83826      P        3
```

EXAMPLE OF
TECHNICAL DEFECT REPORT PACKAGE

```
       U. S. E. P. A.   C O N T R A C T   L A B O R A T O R Y   P R O G R A M

                S A M P L E   M A N A G E M E N T   O F F I C E          .

  O R G A N I C   C O N T R A C T   C O M P L I A N C E   S C R E E N I N G   S Y S T E M


            ************************************************************
            ************************************************************
            ************************************************************
            ****                                                    ****
            ****         S C R E E N I N G   P A C K A G E          ****
            ****       S U M M A R Y   I N F O R M A T I O N        ****
            ****                                                    ****
            ****                    SDG:                            ****
            ****                                                    ****
            ****                   CASE:                            ****
            ****                                                    ****
            ****                    LAB:                            ****
            ****                                                    ****
            ****               CONTRACT:                            ****
            ****                                                    ****
            ****                 REGION:                            ****
            ****                                                    ****
            ****                    DRD:                            ****
            ****                                                    ****
            ****                 FORMAT: A                          ****
            ****                                                    ****
            ****            SCREEN DATE: _____________              ****
            ****                                                    ****
            ****              MAIL DATE: _____________              ****
            ****                                                    ****
            ****               SCREENER: _____________              ****
            ****                                                    ****
            ************************************************************
            ************************************************************
            ************************************************************
```

```
                                  WARNING!

                  LAB RECEIPT DATE VARIES BETWEEN FRACTIONS
                         ON THE FOLLOWING SAMPLES

                 PLEASE CHECK TO MAKE SURE THEY ARE CORRECT

--------------------------------- LAB=      SDG=      DRD=      ---------------------------------

          OBS    SAMPLE    LAB RECEIPT DATE    LAB RECEIPT DATE  LAB RECEIPT DATE
                              VOLATILES         SEMIVOLATILES       PESTICIDES

           1                   19OCT89             23DEC88
           2                   19OCT89             29FEB88
           3                   19OCT89             24OCT89
           4                   19OCT89             24OCT89
```

```
                         U. S. E. P. A.  C O N T R A C T  L A B O R A T O R Y  P R O G R A M
                                   S A M P L E   M A N A G E M E N T   O F F I C E
                     O R G A N I C   C O N T R A C T   C O M P L I A N C E  S C R E E N I N G   S Y S T E M
                                             DEFECT COUNTS BY SAMPLE AND FORM

SDG NUMBER:                                        LABORATORY:                                      CASE NUMBER:

                 V O L A T I L E S                  S E M I V O L A T I L E S                P E S T I C I D E S
--------------------------------------------------------------------------------------------------------------------------
| S |    | F | F | F | F | F | F | F | F |    | F | F | F | F | F | F | F | F |    | F | F | F | F |   |   |   | F | F | F |
| A |    | O | O | O | O | O | O | O | O |    | O | O | O | O | O | O | O | O |    | O | O | O | O |   |   |   | O | O | O |
| M |  A | R | R | R | R | R | R | R | R |  A | R | R | R | R | R | R | R | R |  A | R | R | R | R |   |   |   | R | R | R |
| P |  N | M | M | M | M | M | M | M | M |  N | M | M | M | M | M | M | M | M |  N | M | M | M | M |   |   |   | M | M | M |
| L |  A |   |   |   |   |   |   |   |   |  A |   |   |   |   |   |   |   |   |  A |   |   |   |   |   |   |   |   |   |   |
| E |  L | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  L | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  L | 1 | 2 | 3 | 4 |   |   |   | 8 | 9 |10 |
|---|------------------------------------|------------------------------------|--------------------------------------------|
|   |Y                                   |Y                                   |Y                 1                         |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |Y                                   |Y                                   |Y                 1                         |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |Y                                   |Y                                   |Y                 1                         |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |Y                                   |Y                                   |Y                                           |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |Y                                   |Y                                   |Y                                           |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |Y                                   |Y                                   |Y                                           |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |Y                                   |Y                                   |Y            13   1                         |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |Y                                   |Y                                   |Y                                           |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |Y                                   |Y                                   |Y                                           |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |Y                                   |Y     1                             |Y                 1                         |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |                                    |                                    |                                            |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |                                    |                                    |                                            |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |                                    |                                    |                                            |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |                                    |                                    |                                            |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |                                    |                                    |                                            |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |                                    |                                    |                                            |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |                                    |                                    |                                            |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |                                    |                                    |                                            |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
|   |                                    |                                    |                                            |
|   |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   + |      +   +   +   +   +   +   +   +   +   + |
--------------------------------------------------------------------------------------------------------------------------
```

```
         U. S. E. P. A.  C O N T R A C T   L A B O R A T O R Y   P R O G R A M

                       S A M P L E   M A N A G E M E N T   O F F I C E

      O R G A N I C   C O N T R A C T   C O M P L I A N C E   S C R E E N I N G   S Y S T E M

                              TECHNICAL DEFECT FREQUENCY REPORT

                        LAB:          SDG:          FORMAT: A

   DEFECT     NUMBER      PERCENT OF     DEFECT
    CODE    OF DEFECTS  TOTAL DEFECTS   MESSAGE
   ------   ----------  -------------   -------

    1100        6           31.58       RPD TOTAL
    1270        6           31.58       SPIKE RECOVERY TOTAL
      11        5           26.32       ANALYSIS DATE-BLANK
     350        1            5.26       EXTRACTION DATE
    1262        1            5.26       SPIKE RECOVERY-OUT  BASED ON RESULT3
                ==           =====
                19            100
```

U. S. E. P. A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
TEXTUAL DEFECT REPORT

BY FRACTION

LAB: SDG: FORMAT: A

| VOLATILES SAMPLE: |

CRITERION H. FORM 1A, FORM 1E, MS/MSD SPECIFIC DATA AND TRAFFIC REPORT

H1.4 Quantitation limit of compound(s): ETHYLBENZENE, STYRENE, CIS-1,3-DICHLOROPROPENE, TRANS-1,3-DICHLOROPROPENE, 1,2-DICHLOROETHANE, VINYL ACETATE, 4-METHYL-2-PENTANONE, TOLUENE, CHLOROBENZENE, DIBROMOCHLOROMETHANE, TETRACHLOROETHENE, XYLENE (TOTAL), 1,2-DICHLOROETHENE (TOTAL), CARBON TETRACHLORIDE, 2-HEXANONE, ACETONE, CHLOROFORM, BENZENE, 1,1,1-TRICHLOROETHANE, BROMOMETHANE, CHLOROMETHANE, CHLOROETHANE, VINYL CHLORIDE, CARBON DISULFIDE, BROMOFORM, BROMODICHLOROMETHANE, 1,1-DICHLOROETHANE, 1,1-DICHLOROETHENE, 1,2-DICHLOROPROPANE, 2-BUTANONE, 1,1,2-TRICHLOROETHANE, TRICHLOROETHENE, and 1,1,2,2-TETRACHLOROETHANE qualified "U" on Form 1A is incorrect given header information and SOW-specified CRQL values. (B29).

FORM	SUFFIX	SAMPLE/ SEQUENCE/ CAS NO.	DEFECT MESSAGE	CURRENT VALUE	CORRECT VALUE	COMPARISON FORMS	DEFECT CODE
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	1700	2100		1070
1A	AC		CRQL	1700	2100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	1700	2100		1070
1A	AC		CRQL	1700	2100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	1700	2100		1070
1A	AC		CRQL	1700	2100		1070
1A	AC		CRQL	1700	2100		1070
1A	AC		CRQL	1700	2100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	830	1100		1070
1A	AC		CRQL	830	1100		1070

```
                 U. S. E. P. A.  C O N T R A C T  L A B O R A T O R Y  P R O G R A M
                                S A M P L E  M A N A G E M E N T  O F F I C E
              O R G A N I C  C O N T R A C T  C O M P L I A N C E  S C R E E N I N G  S Y S T E M
                                  T E X T U A L  D E F E C T  R E P O R T

                                           B Y  F R A C T I O N

                              LAB:         SDG:                   FORMAT:  A

                ____________________________________________________
               |                                                    |
               | SEMIVOLATILES      SAMPLE:                         |
               |____________________________________________________|

CRITERION A. SAMPLE HOLDING TIME

  A2     Extraction holding time exceeded.  (D6).

                SAMPLE/
                SEQUENCE/                                        CURRENT          CORRECT           COMPARISON  DEFECT
      FORM SUFFIX CAS NO.   DEFECT MESSAGE______________________ VALUE            VALUE              FORMS      CODE
      1B   AG               EXTRACTION DATE                      EXCEEDED BY      18                DAYS        350

                ____________________________________________________
               |                                                    |
               | SEMIVOLATILES      SAMPLE:                         |
               |____________________________________________________|

CRITERION A. SAMPLE HOLDING TIME

  A2     Extraction holding time exceeded.  (D6).

                SAMPLE/
                SEQUENCE/                                        CURRENT          CORRECT           COMPARISON  DEFECT
      FORM SUFFIX CAS NO.   DEFECT MESSAGE______________________ VALUE            VALUE              FORMS      CODE
      1B   BB               EXTRACTION DATE                      EXCEEDED BY      2                 DAYS        350

                ____________________________________________________
               |                                                    |
               | SEMIVOLATILES      SAMPLE:                         |
               |____________________________________________________|

CRITERION A. SAMPLE HOLDING TIME

  A2     Extraction holding time exceeded.  (D6).

                SAMPLE/
                SEQUENCE/                                        CURRENT          CORRECT           COMPARISON  DEFECT
      FORM SUFFIX CAS NO.   DEFECT MESSAGE______________________ VALUE            VALUE              FORMS      CODE
      1B   BC               EXTRACTION DATE                      EXCEEDED BY      2                 DAYS        350

                ____________________________________________________
               |                                                    |
               | SEMIVOLATILES      SAMPLE:                         |
               |____________________________________________________|
               U. S. E. P. A.  CONTRACT LABORATORY PROGRAM
                          SAMPLE MANAGEMENT OFFICE
          ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM
                           TEXTUAL DEFECT REPORT

                                BY FRACTION

                        LAB:        SDG:                 FORMAT:  A

              ____________________________________________
             |                                            |
             | PESTICIDES        SAMPLE:                  |
             |____________________________________________|

CRITERION E. ANALYTICAL SEQUENCE

  E7     More than 5 samples analyzed between standards. (D37,E60).

              SAMPLE/
              SEQUENCE/                                     CURRENT      CORRECT      COMPARISON   DEFECT
    FORM SUFFIX CAS NO.  DEFECT MESSAGE                     VALUE        VALUE          FORMS      CODE
    8E   AA              > 5 SAMPLES BETWEEN STDS.                                                 1024
    8E   AC              > 5 SAMPLES BETWEEN STDS.                                                 1024

              ____________________________________________
             |                                            |
             | PESTICIDES        SAMPLE:                  |
             |____________________________________________|

CRITERION E. ANALYTICAL SEQUENCE

  E7     More than 5 samples analyzed between standards. (D37,E60).

              SAMPLE/
              SEQUENCE/                                     CURRENT      CORRECT      COMPARISON   DEFECT
    FORM SUFFIX CAS NO.  DEFECT MESSAGE                     VALUE        VALUE          FORMS      CODE
    8E   AA              > 5 SAMPLES BETWEEN STDS.                                                 1024
    8E   AC              > 5 SAMPLES BETWEEN STDS.                                                 1024

              ____________________________________________
             |                                            |
             | PESTICIDES        SAMPLE:                  |
             |____________________________________________|

CRITERION K. FORM 1D, FORM 2E, FORM 2F, FORM 10, MS/MSD-SPECIFIC DATA, AND TRAFFIC REPORT

  K3.2   Reported RT is not within RT windows on Form 10. (D40,D44)

              SAMPLE/
              SEQUENCE/                                     CURRENT      CORRECT      COMPARISON   DEFECT
    FORM SUFFIX CAS NO.  DEFECT MESSAGE                     VALUE        VALUE          FORMS      CODE
    10   AA              RETENTION TIME                     22.39        <> WINDOW                 1130
    10   AA              RETENTION TIME                     22.89        <> WINDOW                 1130
```

1B AH

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB NAME: CONTRACT:

LAB CODE: CASE NO.: SAS NO.: SDG NO.:

MATRIX: (SOIL/WATER) SOIL

LAB SAMPLE ID:

SAMPLE WT/VOL.: 30 (G/ML) G

LAB FILE ID:

LEVEL: (LOW/MED) LOW

DATE RECEIVED: 10/21/89

% MOISTURE: NOT DEC. 20 DEC.

DATE EXTRACTED: 11/03/89

EXTRACTION: (SEPF/CONT/SONC) SONC

DATE ANALYZED: 11/07/89

GPC CLEANUP: (Y/N) N PH: 7.5

DILUTION FACTOR: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L OR UG/KG) UG/KG	Q
108952	PHENOL	180	J
111444	BIS(2-CHLOROETHYL)ETHER	410	U
95578	2-CHLOROPHENOL	410	U
541731	1,3-DICHLOROBENZENE	410	U
106467	1,4-DICHLOROBENZENE	410	U
100516	BENZYL ALCOHOL	410	U
95501	1,2-DICHLOROBENZENE	410	U
95487	2-METHYLPHENOL	58	J
108601	BIS(2-CHLOROISOPROPYL)ETHER	410	U
106445	4-METHYLPHENOL	1000	
621647	N-NITROSO-DI-N-PROP.	410	U
67721	HEXACHLOROETHANE	410	U
98953	NITROBENZENE	410	U
78591	ISOPHORONE	410	U
88755	2-NITROPHENOL	410	U
105679	2,4-DIMETHYLPHENOL	58	J
65850	BENZOIC ACID	2000	U
111911	BIS(2-CHLOROETHOXY)METHANE	410	U
120832	2,4-DICHLOROPHENOL	410	U
120821	1,2,4-TRICHLOROBENZENE	410	U
91203	NAPHTHALENE	64	J
106478	4-CHLOROANILINE	410	U
87683	HEXACHLOROBUTADIENE	410	U
59507	4-CHLORO-3-METHYLPHENOL	410	U
91576	2-METHYLNAPHTHALENE	53	J
77474	HEXACHLOROCYCLOPENTADIENE	410	U
88062	2,4,6-TRICHLOROPHENOL	410	U
95954	2,4,5-TRICHLOROPHENOL	2000	U
91587	2-CHLORONAPHTHALENE	410	U
88744	2-NITROANILINE	2000	U
131113	DIMETHYLPHTHALATE	410	U
208968	ACENAPHTHYLENE	410	U
606202	2,6-DINITROTOLUENE	410	U

3F AA

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

LAB NAME: CONTRACT:
LAB CODE: CASE NO: SAS NO: SDG NO:
MATRIX SPIKE - EPA SAMPLE NO.: LEVEL: (LOW/MED) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC.
GAMMA-BHC(LINDANE)	32.489	0	0	0 *	046-127
HEPTACHLOR	32.489	0	0	0 *	035-130
ALDRIN	32.489	0	0	0 *	034-132
DIELCRIN	81.222	0	0	0 *	031-134
ENDRIN	81.222	320	0	0 *	042-139
4,4-DDT	81.222	85	0	0 *	023-134

COMPOUND	SPIKE ADDED (UG/L)	MSD CONCENTRATION (UG/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
GAMMA-BHC(LINDANE)	32.704	0	0 *	0 *	050	046-127
HEPTACHLOR	32.704	0	0 *	0 *	031	035-130
ALDRIN	32.704	0	0 *	0 *	043	034-132
DIELDRIN	81.759	0	0 *	0 *	038	031-134
ENDRIN	81.759	0	0 *	0 *	045	042-139
4,4-DDT	81.759	0	0 *	0 *	050	023-134

CCLUMN TO BE USED TO FLAG RECOVERY AND RPD VALUES WITH AN ASTERISK
* VALUES OUTSIDE OF QC LIMITS

RPD: 0 OUT OF 0 OUTSIDE LIMITS
SPIKE RECOVERY: 0 OUT OF 0 OUTSIDE LIMITS

COMMENTS: NO SPIKE RECOVERY DATA AVAILABLE DUE TO HIGH DILUTION
FACTOR. SEE BLANK SPIKE DATA.

FORM III

4C AB

PESTICIDE METHOD BLANK SUMMARY

LAB NAME: CONTRACT:

LAB CODE: CASE NO: SAS NO: SDG NO:

LAB FILE ID: LAB SAMPLE ID:

MATRIX: (SOIL/WATER) SOIL

LEVEL: (LOW/MED) LOW

DATE EXTRACTED: 10/30/89

EXTRACTION: (SEPF/CONT/SONC) SONC

DATE ANALYZED (1) : 11/09/89

DATE ANALYZED (2) : 11/10/89

TIME ANALYZED (1) : 23:55

TIME ANALYZED (2) : 6:01

INSTRUMENT ID (1) : 12

INSTRUMENT ID (2) : 02

GC COLUMN ID (1) : 2250/2401

GC COLUMN ID (2) : OV-101

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01				11/10/89
02				11/10/89
03				11/10/89
04			11/10/89	11/10/89
05				11/10/89

COMMENTS:

Appendix B
REPORT CODE TABLES

Organic Contract Compliance Screening System

SAMPLE SUFFIX CODES

SUFFIX	ASSIGNMENT	DUPLICATE *
Field Sample	-01	-02
MS	-08	-80
MSD	-09	-90
RE	-04	-40
DL	-05	-50
MSRE	-06	-60
MSDL	-85	-65
MSDRE	-07	-70
MSDDL	-95	-75
REDL	-03	-30
DLRE	-54	-45

KEY:
MS = Matrix Spike
MSD = Matrix Spike Duplicate
RE = Reanalysis
DL = Dilution

* Duplicate sample number in the data base.

STRUCTURAL DEFECT REPORT - DEFECT CODES AND TEXT (FORMAT A)

DEFECT CODE	DEFECT TEXT
5001	INVALID FORM NUMBER
5002	INVALID FORM SUFFIX
5003	INVALID RECORD TYPE
5005	CASE NUMBER MISSING OR NOT UNIQUE
5006	EXTRANEOUS DATA FOUND PAST END OF LINE
5010	CONTRACT NUMBER MISSING OR NOT UNIQUE
5012	DUPLICATE SUFFIX FOUND ON TIC FORMS
5015	LAB CODE MISSING OR NOT UNIQUE
5016	SDG NUMBER MISSING OR NOT UNIQUE
5019	NO RECORDS FOUND FOR FORM
5020	FORM 1A FOUND, NO FORMS FOR 5A/6A
5021	FORM 5A/6A FOUND, NO FORMS FOR 1A
5022	FORM 1B/1C FOUND, NO FORMS FOR 5B/6B
5023	FORM 5B/6B FOUND, NO FORMS FOR 1B/1C
5024	FORM 7A FOUND, NO FORMS FOR 8A
5025	FORM 8A FOUND, NO FORMS FOR 7A
5026	FORM 7B FOUND, NO FORMS FOR 8B
5027	FORM 8B FOUND, NO FORMS FOR 7B
5028	FORM 1D FOUND, NO FORMS FOR 8D/E OR 9
5029	FORMS 8D/E OR 9 FOUND, NO FORM 1D
5030	INVALID MATRIX
5035	INVALID SAMPLE WEIGHT/VOLUME
5040	INVALID SAMPLE WEIGHT/VOLUME UNITS
5045	INVALID LEVEL
5046	KEY FIELD (FILE ID) MISSING ON VOL/SEMI
5047	KEY FIEELD (SAMPLE ID) MISSING ON PEST
5048	KEY FIELD (FILE ID/SAMPLE ID) MISSING
5050	PROBABLE SHIFT IN DATE RECEIVED FIELD
5055	INVALID PERCENT MOISTURE
5060	INVALID PERCENT MOISTURE DECANTED
5065	INVALID DATE EXTRACTED
5070	INVALID EXTRACTION
5075	PROBABLE SHIFT IN DATE ANALYZED FIELD
5076	PROBABLE SHIFT IN DATE ANALYZED(2) FIELD
5080	INVALID GPC CLEANUP
5085	INVALID PH
5090	INVALID DILUTION FACTOR
5095	INVALID NUMBER TICS FOUND
5100	INVALID CONCENTRATION UNITS
5105	INVALID COLUMN
5119	INVALID TIME ANALYZED
5120	INVALID TIME ANALYZED(1)
5125	INVALID TIME ANALYZED(2)
5130	PROBABLE SHIFT IN INJECTION DATE FIELD
5135	INVALID INJECTION TIME
5140	PROBABLE SHIFT IN CALIB. DATE(1) FIELD
5145	PROBABLE SHIFT IN CALIB. DATE(2) FIELD
5150	PROBABLE SHIFT IN CALIBRATION DATE FIELD
5155	INVALID CALIBRATION TIME
5160	TOO MANY DETAIL RECORDS WITH SAME SUFFIX
5161	INSUFFICIENT DETAIL RECORDS FOR FORM
5165	COMPOUND RESULT SHIFTED OR NON-NUMERIC
5166	CAS NUMBER NOT RECOGNIZED
5170	INVALID COMPOUND QUALIFIER
5175	TIC RT NON-NUMERIC
5180	NON-NUMERIC SURROGATE RECOVERY (S1)
5185	NON-NUMERIC SURROGATE RECOVERY (S2)
5190	NON-NUMERIC SURROGATE RECOVERY (S3)
5195	NON-NUMERIC SURROGATE RECOVERY (S4)
5200	NON-NUMERIC SURROGATE RECOVERY (S5)
5205	NON-NUMERIC SURROGATE RECOVERY (S6)
5210	NON-NUMERIC SURROGATE RECOVERY (OTHER)
5215	NON-NUMERIC SURROGATE RECOVERY (TOT OUT)
5220	PROBABLE SHIFT IN (FROM) ANALYSIS DATE
5225	INVALID (FROM) ANALYSIS TIME

DEFECT CODE	DEFECT TEXT
5230	PROBABLE SHIFT IN (TO) ANALYSIS DATE
5235	INVALID (TO) ANALYSIS TIME
5240	PROBABLE SHIFT IN (STAND) ANALYSIS DATE
5245	INVALID (STANDARD) ANALYSIS TIME
5250	NON-NUMERIC RPD OUT
5255	NON-NUMERIC RPD TOTAL
5260	NON-NUMERIC SPIKE RECOVERY OUT
5265	NON-NUMERIC SPIKE RECOVERY TOTAL
5270	NON-NUMERIC SPIKE ADDED
5275	NON-NUMERIC SAMPLE CONCENTRATION
5280	NON-NUMERIC MS CONCENTRATION
5285	NON-NUMERIC MS % REC.
5290	NON-NUMERIC MSD CONCENTRATION
5295	NON-NUMERIC MSD % REC.
5300	NON-NUMERIC % RPD
5305	INVALID % RELATIVE ABUNDANCE
5306	LAST FORM 5A (D1) RECORD NOT ME177
5307	LAST FORM 5B (D1) RECORD NOT ME443
5310	INVALID OR NON-NUMERIC MASS
5315	INVALID OR NON-NUMERIC RRF20
5320	INVALID OR NON-NUMERIC RRF50
5325	INVALID OR NON-NUMERIC RRF80
5330	INVALID OR NON-NUMERIC RRF100
5335	INVALID OR NON-NUMERIC RRF120
5340	INVALID OR NON-NUMERIC RRF150
5345	INVALID OR NON-NUMERIC RRF160
5350	INVALID OR NON-NUMERIC RRF200
5355	INVALID OR NON-NUMERIC AVERAGE RRF
5360	INVALID OR NON-NUMERIC % RSD
5365	INVALID OR NON-NUMERIC RRF
5370	INVALID OR NON-NUMERIC %D
5375	INVALID IS1 (12 HOUR STANDARD)
5380	INVALID IS1 (UPPER LIMIT)
5385	INVALID IS1 (LOWER LIMIT)
5390	INVALID IS1 (RETENTION TIME)
5395	INVALID IS2 (12 HOUR STANDARD)
5400	INVALID IS2 (UPPER LIMIT)
5405	INVALID IS2 (LOWER LIMIT)
5410	INVALID IS2 (RETENTION TIME)

DEFECT CODE	DEFECT TEXT
5415	INVALID IS3 (12 HOUR STANDARD)
5420	INVALID IS3 (UPPER LIMIT)
5425	INVALID IS3 (LOWER LIMIT)
5430	INVALID IS3 (RETENTION TIME)
5440	INVALID IS1 (SAMPLE)
5445	INVALID RT1 (SAMPLE)
5450	INVALID IS2 (SAMPLE)
5455	INVALID RT2 (SAMPLE)
5460	INVALID IS3 (SAMPLE)
5465	INVALID RT3 (SAMPLE)
5470	INVALID CAL. FACTOR - EVAL MIX A
5475	INVALID CAL. FACTOR - EVAL MIX B
5480	INVALID CAL. FACTOR - EVAL MIX C
5485	INVALID % RSD
5490	INVALID EVAL. CHECK - ENDRIN
5495	INVALID EVAL. CHECK - DDT
5500	INVALID EVAL. CHECK - COMBINED
5505	INVALID % D
5510	INVALID RETENTION TIME
5515	INVALID RT WINDOW (FROM)
5520	INVALID RT WINDOW (TO)
5525	INVALID CALIBRATION FACTOR
5530	INVALID RT (STANDARD)
5535	INVALID CALIBRATION FACTOR (STANDARD)
5540	INVALID % D (STANDARD)
5545	INVALID RETENTION TIME (COLUMN 1)
5550	INVALID RT WINDOW - FROM (COLUMN 1)
5555	INVALID RT WINDOW - TO (COLUMN 1)
5560	INVALID SEQUENCE NUMBER
5565	INVALID RETENTION TIME (COLUMN 2)
5570	INVALID RT WINDOWN - FROM (COLUMN 2)
5575	INVALID RT WINDOW - TO (COLUMN 2)
5580	D1 RECORDS WITHOUT HEADER RECORD OR WITH WRONG SUFFIX
5585	H1 RECORD OUT OF ORDER OR DUPLICATE SUFFIX
5590	HEADER RECORDS WITHOUT DETAIL 1 (D1) RECORDS
5595	HEADER RECORDS WITHOUT DETAIL 2 (D2) RECORDS

STRUCTURAL DEFECT REPORT - DEFECT CODES AND TEXT (FORMAT B)

DEFECT CODE	DEFECT TEXT
6000	INVALID METHOD
6005	INVALID LAB CODE
6010	INVALID CONTRACT NUMBER
6015	NON-SOW SPLIT FOR THIS SAMPLE
6020	MNC COUNT NE 1 FOR VOA/BNA
6025	CLM COUNT NE 5 FOR VOA/BNA
6030	MNC COUNT NE 2 FOR PEST
6035	CLM COUNT NE 5 FOR PEST
6040	SDR NE 1 VOA/BNA/PEST
6045	NO. OF LF1 NOT EQUAL TO NO. OF LF2
6046	NO. OF LF1 NOT EQUAL TO NO. OF SDR
6048	INVALID SAMPLE NUMBER
6049	INVALID SAMPLE FOR THE QC-CODE SDR
6050	FILE ID MISSING FOR LPC
6051	BLANK FILE-ID MISSING FOR EPA SAMPLE
6055	UNKNOWN LEVEL
6060	UNKNOWN MATRIX
6065	REDUNDANT SAMPLES WITHIN A RUN(PEST FRACT)
6070	REDUNDANT SAMPLES WITHIN A FRACTION
6075	UNKNOWN CASE NUMBER
6080	UNKNOWN QC QUALIFIER
6085	UNKNOWN SQ QUALIFIER
6090	INCONSISTANT RESULTS FOR SPLIT SAMPLES
6095	SURROGATE COMPOUNDS INADEQUATE
7000	INTERNAL STANDARDS INADEQUATE
7015	SURROGATE COMPOUNDS INADEQUATE FOR PEST
7020	INADEQUATE NO. OF COMPOUNDS IN SDR
7025	NON-SOW RECORD TYPE
7030	PESTICIDE RESULTS ON TWO COLUMNS

TECHNICAL DEFECT REPORT - DEFECT CODES AND TEXT

DEFECT CODE	DEFECT TEXT
10	ANALYSIS HOLDING TIME
11	ANALYSIS DATE-BLANK
12	COLUMN 2 ANALYSIS DATE
13	COLUMN 2 ANALYSIS DATE
14	ANALYSIS DATE
15	CONT. CALIB. HOLDING TIME
20	ALDRIN - EVAL MIX A
30	ALDRIN - EVAL MIX B
40	ALDRIN - EVAL MIX C
50	ALDRIN - % RSD
60	ANALYSIS TIME
61	ANALYSIS TIME-BLANK
62	COLUMN 2 BLANK ANALYSIS TIME
63	ANALYSIS TIME AFTER 72 HOURS
64	ANALYSIS TIME-CON. CALIBRATION
70	AVERAGE RRF
80	CALIBRATION FACTOR
90	COMPOUND
91	COMPOUND-CAS NUMBER
100	CASE NUMBER
110	CONT. CALIBN DATE
111	IMPROPER REANALYSIS ID
112	NON-SOW EPA SAMPLE ID
120	CONT. CALIBN TIME
130	CONCENTRATION UNITS
140	COLUMN DESIGNATOR
150	PESTICIDE COMBINED
160	COMMENT
170	COMPOUND
171	UNIDENTIFIED COMPOUND
180	CONTRACT NUMBER
181	COMBINED(BREAKDOWN)
190	DBC - EVAL MIX A
200	DBC - EVAL MIX B
210	DBC - EVAL MIX C
220	DBC - % RSD
230	4,4'-DDT(BREAKDOWN)
240	4,4'-DDT - EVAL MIX A
250	4,4'-DDT - EVAL MIX B
260	4,4'-DDT - EVAL MIX C
270	4,4'-DDT - % RSD
280	DILUTION FACTOR
290	ENDRIN - EVAL MIX A
300	ENDRIN - EVAL MIX B
310	ENDRIN - EVAL MIX C
320	ENDRIN - % RSD
330	ENDRIN (BREAKDOWN)
340	EXTRACTN. METHOD
341	EXTRACT-BLANK
350	EXTRACTN. HOLD TIME
351	EXTRACT DATE (FOR BLANK)
360	LAB FILE ID
361	LAB FILE ID (FOR BLANK)
370	QC FLAG (*)
380	FORM NUMBER
381	MISSING
382	NO FORM1 FOR MS/MSD
383	INCONSISTENCY
384	MISSING FORM 6
385	MISSING FORM 7
386	ASSOCIATED FORM 8D
390	GC COLUMN ID
391	GC/MS CONFIRMATION
400	GPC CLEANUP
410	ANALYSIS DATE
411	TUNE FOR INIT. CALIBN. IS NONCOMPLIANT
412	TUNE FOR CONT. CALIBN. IS NONCOMPLIANT
413	TUNE FOR INIT/CONT CALIBN NONCOMPLIANT
420	INITIAL CALIBRATION TIME
430	INSTRUMENT ID
440	INJECTION DATE
450	INJECTION TIME
460	AREA 1
461	RT 1
470	AREA 1 FLAG
480	AREA 2
482	RT 2
490	AREA 2 FLAG
500	AREA 3
505	AREA 4
506	AREA 5
507	AREA 6
501	RT 3
502	RT 4
503	RT 5
504	RT 6
510	AREA 3 FLAG
511	AREA 4 FLAG
512	AREA 5 FLAG
513	AREA 6 FLAG
520	LABORATORY CODE
530	LABORATORY NAME
540	LEVEL
541	LEVEL (FOR BLANK)
550	AREA 1 LOWER LIMIT
560	AREA 2 LOWER LIMIT
570	AREA 3 LOWER LIMIT

DEFECT CODE	DEFECT TEXT
571	AREA 4 LOWER LIMIT
572	AREA 5 LOWER LIMIT
573	AREA 6 LOWER LIMIT
580	MATRIX
581	MATRIX (FOR BLANK)
582	MATRIX ON FORM 1
590	M/E 127
600	M/E 173
610	M/E 173 (FOOTNOTE 1)
620	M/E 174
630	M/E 175
640	M/E 175 (FOOTNOTE 1)
650	M/E 176
660	M/E 176 (FOOTNOTE 1)
670	M/E 177
680	M/E 177 (FOOTNOTE 2)
690	M/E 197
700	M/E 198
710	M/E 199
720	M/E 275
730	M/E 365
740	M/E 441
750	M/E 442
760	M/E 443
770	M/E 443 (FOOTNOTE 2)
780	M/E 50
790	M/E 51
800	M/E 68
810	M/E 68 (FOOTNOTE 1)
820	M/E 69
830	M/E 70
840	M/E 70 (FOOTNOTE 1)
850	M/E 75
860	M/E 95
870	M/E 96
880	SPIKE ADDED TO MS
890	MS % REC. OUT FLAG
891	MS % REC. OUT FLAG (IF RESULT1 CORRECT)
892	MS % REC. OUT FLAG (IF RESULT3 CORRECT)
900	MS % REC.
901	MS % REC. (IF RESULT1 CORRECT)
902	MS % REC. (IF RESULT3 CORRECT)
903	NO MS/MSD (FORM 3) FOR THIS
904	# OF MS NOT EQUAL # MSD
905	NO FORM 1 FOR MS/MSD
906	MORE THAN 20 FIELD SAMPLES PER SDG
910	MS CONCENTRATION

DEFECT CODE	DEFECT TEXT
920	SPIKE ADDED TO MSD
930	MSD % REC. OUT FLAG
931	MSD % REC. OUT FLAG ASSUM. RESULT1
932	MSD % REC. OUT FLAG ASSUM. RESULT3
940	MSD % REC.
941	MSD % REC. ASSUMING RESULT1
942	MSD % REC. ASSUMING RESULT3
950	MSD CONCENTRATION
960	MSD % RPD
961	MSD % RPD ASSUMING RESULT1
962	MSD % RPD ASSUMING RESULT3
970	NUMBER TICS FOUND
980	OTHER (SURROGATES)
990	% MOISTURE
1000	% MOISTURE DECANTED
1010	PAGE
1020	% D
1021	% D NONCOMPLIANT FOR STANDARD
1022	STD SEQUENCE NONCOMP.
1023	EVALA/INDA INCORR. SEQU.
1024	> 5 SAMPLES BETWEEN STDS.
1025	SEQ. DOES NOT END WITH INDA/B
1030	PH
1040	RESULT QUALIFIER (Q)
1050	QUANTITATION COLUMN?
1060	DATE RECEIVED
1070	CRQL
1071	BLANK RESULT EXCEEDS SOW CRQL
1072	EST. CONC.
1073	RESULT
1074	CRQL - AWAITING EPA DECISION
1080	MSD % RPD OUT FLAG
1081	MSD % RPD OUT FLAG ASSUME RES1
1082	MSD % RPD OUT FLAG ASSUME RES3
1090	TOTAL RPD OUTSIDE LIMITS
1091	TOTAL RPD BASED ON RESULT1
1092	TOTAL RPD BASED ON RESULT2
1100	RPD TOTAL
1110	RRF
1111	RRF 50
1120	% RSD (INITIAL CALIBRATION)
1130	RETENTION TIME
1140	RETENTION TIME WINDOWS (FROM/TO)
1150	RT-AREA 1
1160	RT-AREA 2
1170	RT-AREA 3
1180	RT 1
1190	RT 2

DEFECT CODE	DEFECT TEXT
1191	NO CONTINUING CALIBN. DATA REPORTED
1192	RT FOR DDT > 12 MINUTES COL 1
1193	RT FOR DDT > 12 MINUTES COL 2
1194	RT1 REPORTED BUT RT WINDOWS UNDEFINED
1200	LAB SAMPLE ID
1201	LAB SAMPLE ID
1210	SAMPLE WT/VOL
1220	EPA SAMPLE NO.
1221	SURR. RECOVERY INCONSISTENT
1222	NO REANALYSIS
1223	INT. STD FOR RE INCONSISTANT
1230	SAS NO.
1240	SDG NO.
1250	TIC SEQUENCE NUMBER
1251	SEQUENCE NOT CHRONOLOGICAL
1260	SPIKE RECOVERY
1261	SPIKE RECOVERY-OUTBASED ON RESULT1
1262	SPIKE RECOVERY-OUTBASED ON RESULT2
1270	SPIKE RECOVERY TOTAL
1280	12 HR STD. AREA 1
1290	12 HR STD. AREA 2
1300	12 HR STD. AREA 3
1301	12 HR STD. AREA 4
1302	12 HR STD. AREA 5
1303	12 HR STD. AREA 6
1310	12 HR STD. RT 1
1320	12 HR STD. RT 2
1327	12 HR STD. RT 4
1328	12 HR STD. RT 5

DEFECT CODE	DEFECT TEXT
1329	12 HR STD. RT 6
1330	12 HR STD. RT 3
1331	MISSING INIT. CALIBN. STDS.
1332	MISSING INIT. CALIBN. STDS.
1333	NO STANDARDS REPORTED
1334	FORM 6/7 STD LAB FILE IDS NOT THE SAME
1335	NO BLANKS REPORTED WITH TUNE
1340	FORM SUFFIX
1350	SURROGATE S1
1360	SURROGATE S1 OUT FLAG
1370	SURROGATE S2
1380	SURROGATE S2 OUT FLAG
1390	SURROGATE S3
1400	SURROGATE S3 OUT FLAG
1410	SURROGATE S4
1420	SURROGATE S4 OUT FLAG
1430	SURROGATE S5
1440	SURROGATE S5 OUT FLAG
1450	SURROGATE S6
1460	SURROGATE S6 OUT FLAG
1470	# SURR. OUT OF QC LIMITS
1480	UPPER LIMIT - AREA 1
1490	UPPER LIMIT - AREA 2
1500	UPPER LIMIT - AREA 3
1501	UPPERLIMIT- AREA 4
1502	UPPER LIMIT - AREA 5
1503	UPPERLIMIT- AREA 6
1510	WEIGHT UNITS
1530	SURR. RECOVERY N/COMP FOR THIS BLANK
1535	SURR. RECOVERY N/COMP FOR ASSOC. BLANK

Appendix C
LISTING OF DEFECT STATEMENTS

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CONTRACT COMPLIANCE SCREENING

VOA ORGANIC

LISTING OF DEFECT STATEMENTS

FEBRUARY 1990

CONTRACT COMPLIANCE SCREENING
VOA ORGANIC
LISTING OF DEFECT STATEMENTS

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Introduction

The statements and SOW references described in this document are used for all notification of defects identified during CCS inspection of deliverables. Each statement is structured as follows:

Square brackets [ ] either enclose the list of possible items that may be associated with part of a defect statement e.g. [Analysis/Receipt] or indicate where item names may be filled in to complete the defect statement. Applicable items only are included for the report statement.

Parentheses ( ) enclose the page reference (to the Statement of Work) on which notification of noncompliance is based.

For example, statement A1.1:

> [Analysis/Receipt] date missing from Form 1A. (B28)
>
> might be reported as:
>
> Analysis date missing from Form 1A. (B28)

The following pages list the statements used for each type of defect, organized by the CCS criterion under which they are reported. Note that the compliance of blanks, calibrations, and matrix spike/matrix spike duplicates associated with a sample is assessed, where applicable, on the basis of their own associated QC criteria.

Criteria denoted with an asterisk (*) are those checks that are performed manually.

Criterion A. Sample Holding Time

A1	[Analysis/Receipt] date missing from Form [1A/1E]. (B28, B31).
A2	Analysis holding time exceeded. (D6)
A3	Compliance cannot be determined - [Analysis/Receipt] date on Form 1A is not the same as the value reported on Form 1E/5A. (B31, B33, B34)

Criterion B. Sample Associated Tune

B1	Sample is not listed on Form 5A. (B33, B34)
B2	Form 5A header has missing values for variables(s): [Column Designator/Instrument ID/Injection Time/Injection Date/Level/Matrix]. (B34)
B3	Reported % relative abundance of ion(s): M/E [50,75,95,96,173,174,176,177] is (are) not within SOW-specified limits. (E12)

B4	Reported value of derived % relative abundance of ion [M/E177/M/E176/M/E174/M/E173] is incorrect given abundance of [M/E177/M/E176/M/E174/M/E173] and [M/E174/M/E176] reported on Form 5A. (E12)
B5	[EPA Sample No./Lab File ID/Date of Analysis/Time of Analysis] is (are) not reported on Form 5A. (B34)
B6	Reported time of analysis is not within 12 hours of reported BFB injection Date/Time. (B34, E11)
B7	Mass [Listing/Spectrum] not submitted for tune. (E11*)
B8	Compliance cannot be determined - [EPA Sample No./Lab File ID/Time of Analysis/Instrument ID/Level/Column Designator] reported on Form 5A is not the same as the value reported on Form 1A/4A. (B27, B28, B33)
B9	Compliance cannot be determined - [Date of Analysis/Time of Analysis/Instrument ID] on sample [Quantitation Report/Mass Spectrum/RIC] is not present. (B11,B12*)
B10	Compliance cannot be determined - [Date of Analysis/Time of Analysis/Instrument ID] on tune [Mass Listing/Mass Spectrum] is not present. (B11,B12*)

Criterion C. Sample Associated Blank

C1	Sample is not listed on Form 4A. (B33)
C2	Form 4A header is missing values for variable(s): [Analysis Date-Blank/Analysis Time-Blank/Instrument ID/Level/Matrix]. (B33)
C3	[Time of Analysis] not reported on Form 4A. (B33)
C4	Concentration of [Compound] in the blank exceeds SOW-specifications. (E18)
C5	Reported time of analysis for the sample (Form 4A) is not within 12 hours of reported time of analysis for the blank. (E17)
C6	[Quantitation Report/RIC/Mass Spectrum] for compound [] not submitted for the associated blank. (B7,B9*)
C7	Blank is not reported on Form [1A/5A]. (B25, B27, B33)
C8	No Form 1A present for the blank with the same [Matrix] as the sample. (B26)
C9	Compliance cannot be determined - [Date of Analysis/Time of Analysis/Instrument ID/Lab File ID] of the blank reported on Form 4A is not the same as the value reported on its associated Form 5A. (B33, B34)
C10	SOW specified format for EPA Sample No. not followed for blank reported on Form [1A/1E/4A/5A/8A].

Criterion D. Initial Calibration

D1	Sample does not have an associated Form 6A. (B34, E15)
D2	Form 6A header has missing values for variable(s): [Column Designator/Lab File ID/Initial Calibration Date/Instrument ID/Level/Matrix]. (B35)
D3	[Quantitation report/RIC] not submitted for initial calibration standard [20/50/100/150/200]. (B8*)
D4	[RRF/Mean RRF/% RSD] for [compound name] [<0.250/<0.300/>30%/not reported]. (E13, B35, E15)
D5	Sample analyzed before identified associated initial calibration. (E11)
D6	Compliance cannot be determined - [Date of Analysis/Time of Analysis/File ID] on initial calibration standard [20/50/100/150/200] is not the same as the value reported on Form [5A/6A/7A/8A]. (B26)
D7.1	Initial calibration standard(s) [20/50/100/150/200] not listed on a Form 5A. (B34)
D7.7	[Date of Analysis/Time of Analysis/Instrument ID] on initial calibration standard [20/50/100/150/200] [Quantitation Report/RIC] is not present. (B28*)
D8	Compliance cannot be determined - [Lab Code/Case No./SAS No./Contract No./SDG No.] reported on Form [5A/6A] associated with initial calibration is not the same as reported on Form(s) [ ] submitted in this deliverable. (B19)
D9	SOW-specified format for "EPA Sample No." not followed for initial calibration standard reported on associated Form 5A. (B20)

Criterion E. Continuing Calibration and Internal Standards

1. Continuing Calibration

E1.1	Sample does not have an associated Form 7A. (B35, E17)
E1.2	Form 7A header is missing values for variable(s): [Column Designator/Matrix]. (B35)
E1.3	[Quantitation Report/RIC] not submitted for continuing calibration standard. (B8*)
E1.4	[RRF/Mean RRF/% D] for [compound name] [<0.250/<0.300/>30%/not reported]. (B36, E16)
E1.5	Sample analyzed before associated continuing calibration standard. (E12)

E1.6	Compliance cannot be determined - [Mean RRF/Continuing Calibration Date/Continuing Calibration Time/Column Designator/Level/Matrix] on Form 7A is not the same as the value reported on Form 6A/8A. (B24, B35, B36, B37)
E1.7	[Date of analysis/Time of analysis/Instrument ID] on continuing calibration standard [Quantitation Report/RIC] is not present. (B8*)

2. Internal Standards

E2.1	Sample does not have an associated Form 8A. (B36)
E2.2	Form 8A header has missing values for variable(s): [Analysis Date/Analysis Time/Column Designator/Lab File ID/Instrument ID/Level/Matrix]. (B36)
E2.3	Form 8A is missing calibration [Area/RT Values/Limits] for internal standard [S1/S2/S3]. (B36)
E2.4	Internal standard [S1/S2/S3] has area outside SOW limits and no reanalysis reported. (B36)
E3	Compliance cannot be determined - [Lab Code/Case No./SAS No./Contract No./SDG No.] reported on calibration associated Form [5A/7A/8A] is not the same as reported on Form(s) [ ] submitted in this deliverable. (B19)
E4	SOW-specified format for "EPA Sample No." not followed for continuing calibration standard reported on Form [5A/8A]. (B20)
E5	Compliance cannot be determined - analysis date on Form 8A not within affiliated Form 6A initial calibration dates. (B36)

Criterion F. Surrogate Recovery

F1	Sample is not listed on Form [2A/2B]. (B31, B32, B21)
F2	Form [2A/2B] header has missing values for variables(s): [Level]. (B31)
F3.1	[S1/S2/S3] [Recovery Values/Recovery Out Flags/Total Out] not reported on Form 2A. (B31) (*B* for total out)
F3.2	[S1/S2/S3] [Recovery Values/Recovery Out Flags/Total Out] not reported on Form 2B. (B31, E20) (*B* for total out)
F4	Surrogate recovery values noncompliant - surrogate [S1/S2/S3] recovery outside SOW limits and no reanalysis reported. (E19, E20)
F5	Compliance cannot be determined - no associated Form [2A/2B] present with the same [Matrix/Level] as on Form [1A/1E/3A/3B/4A/5A/8A]. (B31)
F6	Compliance cannot be determined - [Lab Code/Case No./SAS No./Contract No./SDG No.] reported on Form [2A/2B] is not the same as reported on Form(s) [ ] submitted in this deliverable. (B19)

F7	D Flag listed on Form [2A/2B], but dilution factor not greater than 1. (B32) (*B*)

Criterion G. Matrix Spike/Matrix Spike Duplicate

G1	No Form [3A/3B] submitted applicable to this sample. (E21)

Criterion H. Sample Form 1, MS/MSD-Specific Data, Traffic Report

1. Form 1

H1.1	Form 1A not submitted for [sample]. (B23)
H1.2	Compliance cannot be determined - [Concentration Units/Dilution Factor/Lab File ID/Level/Matrix/% Moisture/Result/Sample Wt./Volume/SAS No./Weight Units] on Form 1A is not the same as the value reported on Form 1E/3A/3B/4A/6A. (B26)
H1.3	CAS number, [number] on Form 1A is not valid for a VOA TCL compound. (C1, C3)
H1.4	Quantitation limit of compound(s): [compound] qualified "U" on Form 1A is incorrect given header information and SOW-specified CRQL values. (B29)
H1.5	Qualifier for [TCL/TIC] compound(s): [compound] on Form 1A does not include "B", but the compound is present in the associated blank above the SOW-specified reporting level. (B30)
H1.6	The number of TICs found is not reported on Form 1F. (B31). (*B*)
H1.7	TIC [compound name/estimated concentration/retention time] is (are) missing. (B31)
H1.8	Improper EPA Sample No. for a reanalysis. (B20)
H1.9	Compound is [Missing/Unidentified] on Form 1A/1E/3A/6A/7A. (B27)
H1.10	[Concentration Units/Column Designator/Level/Matrix/Weight Units] are missing on Form 1A. (B26, B28)
H1.11	Compound result value on Form 1A is missing for compound [compound]. (B28)

2. Traffic Report

H2.1	TR not submitted. (B4*)
H2.2	[Date received/recipient signature/Case No./SDG No./EPA Sample ID/Lab Code] not reported on TR. (B4*)
H2.3	Holding Time cannot be verified - [Date received/Case No./SDG No./Lab Code] is not the same as reported on Form [1A/1E]. (B4/B19*)

3. MS/MSD Specific Data

H3.1	SOW-specified format not followed for EPA Sample No. reported on Form [1A/1E]. (B25)
H3.2	Form 1E header has missing values: [Concentration Units/Dilution Factor/% Moisture/Sample Wt./Vol.]. (B27, B29, B32)
H3.3	[MS/MSD] [Spike Added/Sample Concentration/%REC/%RPD] missing for compound [compound] on Form [3A/3B]. (B32)
H3.4	[MS % Rec/MSD % Rec/ MSD % Rec Out Flag/MSD % RPD/MSD % RPD Out Flag/Total RPD/Spike Recovery-Out/Spike Recovery Total] is (are) not reported on Form [3A/3B]. (B32) (*B*)
H3.5	No Form 1A for [MS/MSD] for the matrix/level combination of this sample.

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Introduction

The statements and SOW references described in this document are used for all notification of defects identified during CCS inspection of deliverables. Each statement is structured as follows:

Square brackets [ ] either enclose the list of possible items that may be associated with part of a defect statement e.g. [Analysis/Receipt] or indicate where item names may be filled in to complete the defect statement. Applicable items only are included for the report statement.

Parentheses ( ) enclose the page reference (to the Statement of Work) on which notification of noncompliance is based.

For example, statement A1.1:

[Analysis/Receipt] date missing from Form 1B.

might be reported as:

Analysis date missing from Form 1B. (B28)

The following pages list the statements used for each type of defect, organized by the CCS criterion under which they are reported. Note that the compliance of blanks, calibrations, and matrix spike/matrix spike duplicates associated with a sample is assessed, where applicable, on the basis of their own associated QC criteria.

Criterion denoted with an asterisk (*) are those checks that are performed manually.

Criterion A. Sample Holding Time

A1	[Analysis/Receipt] date missing from Form [1B/1C/IF]. (B28, B31)
A2	[Analysis/Extraction] holding time exceeded. (D6)
A3	Compliance cannot be determined - [Analysis/Receipt/Extraction] date on Form 1B is not the same as the value reported on Form [1C/1F/4B/5B]. (B27, B33)

Criterion B. Sample Associated Tune

B1	Sample is not listed on Form 5B. (B34)
B2	Form 5B header has missing values for variable(s): [Instrument ID/Injection Date/Injection Time]. (B34)
B3	Reported % relative abundance of ion(s): M/E [51,68,69,70,127,197,198,199,275,365,441,442,443] is (are) not within SOW-specified limits. (E30)

B4	Reported value of derived % relative abundance of ion [M/E70/M/E68/M/E443] is incorrect given abundance of [M/E70/M/E68/M/E443] and [M/E69/M/E442] reported on Form 5B. (E30)
B5	[EPA Sample No./Lab File ID/Date of Analysis/Time of Anlaysis] is (are) not reported on Form 5B. (B34)
B6	Reported time of analysis is not within 12 hours of reported DFTPP injection [Date/Time]. (B34, E29)
B7	Mass [Listing/Spectrum] not submitted for tune. (E11)*
B8	Compliance cannot be determined - [EPA Sample No./Lab File ID/Time of Analysis/Instrument ID] reported on Form 5B is not the same as the value reported on Form [1B/4B]. (B27, B28, B33, B36, B37)
B9	Compliance cannot be determined - [Date of Analysis/Time of Analysis/Instrument ID] on sample [Quantitation Report/Mass Spectrum/RIC] not present. (B11,B12)*
B10	Compliance cannot be determined - [Date of Analysis/Time of Analysis/Instrument ID] on tune [Mass Listing/Mass Spectrum] not present. (B11,B12)*

Criterion C. Sample Associated Blank

C1	Sample is not listed on Form 4B. (B33)
C2	Form 4B header is missing values for variable(s): [Analysis Date-Blank/Analysis Time-Blank/Extraction Method/Extraction Date/Instrument ID/Level/Matrix]. (B33)
C3	[Time of Analysis] not reported on Form 4B. (B33)
C4	Concentration of [compound] in the blank exceeds SOW-specification. (E36)
C5	[Date of Extraction/Extraction Method] for the blank is not the same as the [Date of Extraction/Extraction Method] reported for the sample. (E16)
C6	[Quantitation report/RIC/Mass spectrum] for compound [] not submitted for the associated blank. (B7,B9)*
C7	Blank is not reported on Form [1B/5B]. (B33, E36, E37)
C8	No Form 1B present for the blank with the same matrix as the sample. (E36, E37)
C9	Compliance cannot be determined - [Date of Analysis/Time of Analysis/Instrument ID/Lab File ID] of the blank reported on Form 4B is not the same as the value reported on its associated Form 5B. (B33, B34)

C10	SOW-specified format for EPA Sample No. not followed for blank reported on Form [1B/1C/1F/4B/5B/8B/8C]. (B20)
C11	[Date of Analysis/Time of Analysis/Instrument ID] on blank [Quantitation Report/Mass Spectrum/RIC] not present. (B11,B12)*

Criterion D. Initial Calibration

D1	Sample does not have an associated Form [6B/6C]. (B34, E32)
D2	Form [6B/6C] header has missing values for variable(s): [Lab File ID/Initial Calibration Date/Instrument ID]. (B33)
D3	[Quantitation report/RIC] not submitted for initial calibration standard [20/50/80/120/160]. (B8)*
D4	[RRF/Mean RRF/%RSD] for [compound name] [<0.050/>30%/not reported]. (B35, E31, E32)
D5	Sample analyzed before identified associated intital calibration. (E11)
D6	Compliance cannot be determined - [Date of Analysis/Time of Analysis/File ID] on initial calibration standard [20/50/80/120/160] is not the same as reported on Form [5B/6B/6C/7B/7C]. (B26)
D7.1	Initial calibration standard(s) [20/50/80/120/160] not listed on a Form 5B. (B34, E30)
D7.7	Mass [Listing/Spectrum] not submitted for tune associated with initial calibration standard [20/50/80/120/160]. (B9).*
D7.8	[Date of Analysis/Time of Analysis/Instrument ID] on initial calibration standard [20/50/80/120/160] [Quantitation Report/RIC] not present. (B28)*
D7.9	[Date of Analysis/Time of Analysis/Instrument ID] on [Mass Listing/Mass Spectrum] for tune associated with initial calibration not present. (E11)*
D8	Compliance cannot be determined - [Lab. Code/Case No./SAS No./Contract No./SDG No.] reported on Form [5B,6B,6C] associated with initial calibration is not the same as reported on Form (s) [ ] submitted in this deliverable. (B19)
D9	SOW-specified format for "EPA Sample No." not followed for initial calibration standard reported on associated Form(s) 5B. (B20)

Criterion E. Continuing Calibration and Internal Standards

1. Continuing Calibration

E1.1	Sample does not have an associated Form [7B/7C]. (B36, E35)
E1.2	Form [7B/7C] header is missing values for variable(s): [Continuing Calibration Time/Lab File ID]. (B35)
E1.3	[Quantitation Report/RIC] not submitted for continuing calibration standard. (B8)*
E1.4	[RRF/Mean RRF/%D] for [compound name] [<0.050/>25%/Not Reported]. (E34, B35, B36)
E1.5	Sample analyzed before associated continuing calibration standard. (E30)
E1.6	Compliance cannot be determined - [Mean RRF/Continuing Calibration Date/Column Designator/Continuing Calibration Time] on Form 7B is not the same as the value reported on Form [6B/6C/8B/8C]. (B34, B35, B36, B37)

2. Internal Standards

E2.1	Sample does not have an associated Form [8B/8C]. (B36)
E2.2	Form [8B/8C] header has missing values for variable(s): [Analysis Date/Analysis Time/Lab File ID/Insturment ID]. (B36)
E2.3	Form [8B/8C] is missing calibration [Area/RT Value/Limits] for internal standard [S1/S2/S3/S4/S5/S6]. (B36)
E2.4	Internal standard [S1/S2/S3/S4/S5/S6] has [Area/RT] outside SOW limits and no reanalysis reported. (B36)
E3	Compliance cannot be determined [Lab. Code/Case No./SAS No./Contract No./SDG No.] reported on calibration-associated Form [5B/7B/7C/8B/8C] is not the same as reported on Form(s) [ ] submitted in this deliverable. (B19)
E4	SOW-specified format for "EPA Sample No." not followed for continuing calibration standard reported on Form [5B/8B/8C]. (B20)
E5	Compliance cannot be determined - analysis date on Form [8B/8C] not within affiliated Form 6B/6C initial calibration dates. (B36)

Criterion F. Surrogate Recovery

F1	Sample is not listed on Form [2C/2D]. (B31, E40)
F2	Form [2C/2D] header has missing values for variable(s): [Level]. (B31)
F3.1	[S1/S2/S3/S4/S5/S6] [Recovery Values/Recovery Out Flags/Total Out] not reported on Form 2C. (B31) (*B* for total out)

F3.2	[S1/S2/S3/S4/S5/S6] [Recovery Values/Recovery Out Flags/Total Out] not reported on Form 2D. (B31) (*B* for total out)
F4	Surrogate recovery values noncompliant - surrogate [S1/S2/S3/S4/S5/S6] recovery outside SOW limits and no reanalysis reported. (E38, E39)
F5	Compliance cannot be determined - no associated Form [2C/2D] present with the same [Matrix/Level] as on Form 1B. (B31)
F6	Compliance cannot be determined - [Lab. Code/Case No./SAS No./Contract No./SDG No.] reported on Form [2C/2D] is not the same as reported on Form(s) [ ] submitted in this deliverable. (B19)
F7	D flag listed on Form [2C/2D], but dilution factor not greater than 1. (B32) (*B*)

Criterion G. Matrix Spike/Matrix Spike Duplicate

G1	No Form [3C/3D] submitted applicable to this sample. (E40, B32)

Criterion H. Sample Form 1, MS/MSD Specific Data, Traffic Report

1. Form 1

H1.1	Form [1B/1C/1F] not submitted for [sample]. (B23)
H1.2	Compliance cannot be determined - [Concentration Units/Dilution Factor/Extraction Method/Extraction Date/Lab File ID/GPC Clean-up/Level/Matrix/% Moisture/% Mosture Decanted/pH/Result/Sample Weight/Vol./SAS No./ Weight Units] on Form 1B is not the same as the value reported on Form [1C/1F/3C/3D/4B/6B/6C]. (B27, B28, B32, B33, B34, B35)
H1.3	CAS number, [number] on Form [1B/1C] is not valid for a BNA TCL compound. (C4, C5)
H1.4	Quantitation limit of compound(s): [compound] qualified "U" on Form [1B/1C/1F] is incorrect given header information and SOW-specified CRQL values. (B29)
H1.5	Qualifier for [TCL/TIC] compound(s): [compound] on Form [1B/1C] does not include "B", but the compound is present in the associated blank above the SOW-specified reporting level. (B30)
H1.6	The number of TICs found is not reported on Form 1E. (B31). (*B*)
H1.7	TIC [Compound Name/Estimated Concentration/Retention Time] is (are) missing. (B31)
H1.8	Improper EPA Sample No. for a reanalysis. (B25)
H1.9	Compound is [missing/unidentified] on Form [1B/1C/1F/3C/3D/6B/6C/7B/7C]. (B27)

H1.10	[Concentration Units/Level/Matrix/Weight Units] are [missing/incorrect] on Form [1B/1C/1F]. (B26, B28)
H1.11	Compound result value on Form 1B is missing for compound [compound]. (B28)

2. Traffic Report

H2.1	TR not submitted. (B4)*
H2.2	[Date Received/Recipient Signature/Case No./SDG No./EPA Sample ID/Lab Code] not reported on TR. (B4)*
H2.3	Holding time cannot be verified - [Date Received/Case No./SDG No./Lab Code] is not the same as reported on Form [1B/1C/1F]. (B4/B19)*

3. MS/MSD Specific Data

H3.1	SOW-specified format not followed for EPA Sample No. reported on Form [1B/1C/1F]. (B25)
H3.2	Form 1F header has missing values for variable(s): [Concentration Units/Extraction Method/Extraction Date/GPC Cleanup/% Moisture/pH/Sample Wt./Vol.]. (B28, B31, B32)
H3.3	[MS/MSD] [Spike Added/Sample Concentration/%REC/%RPD] not reported for compound [compound] on Form [3C/3D]. (B32)
H3.4	[MS % Rec/MSD % Rec/MS % Rec Out Flag/MSD % RPD Out Flag/ Total RPD/Spike Recovery-Out/Spike Recovery Total] is (are) not reported on Form [3C/3D]. (B32). (*B*)

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Introduction

The statements and SOW references described in this document are used for all notification of defects identified during CCS inspection of deliverables. Each statement is structured as follows:

Square brackets [ ] either enclose the list of possible items that may be associated with part of a defect statement e.g. [Analysis/Receipt] or indicate where item names may be filled in to complete the defect statement. Applicable items only are included for the report statement.

Parentheses ( ) enclose the page reference (to the Statement of Work) on which notification of noncompliance is based.

For example, statement A1:

[Analysis/Receipt] date missing from Form ID. (B28)

might be reported as:

Analysis date missing from Form ID. (B28)

The following pages list the statements used for each type of defect, organized by the CCS criterion under which they are reported. Note that the compliance of blanks, calibrations, and matrix spike/matrix spike duplicates associated with a sample is assessed, where applicable, on the basis of their own associated QC criteria.

Criterion denoted with an asterisk (*) are those checks that are performed manually.

Criterion A. Sample Holding Time

A1	[Analysis/Receipt] date missing from 1D. (B28)
A2	[Analysis/Extraction] holding time exceeded. (D6)
A3	Compliance cannot be determined - [Analysis Date/Receipt Date/Extraction Date] on Form 1D is not the same as the value reported on Form 4C. (B27, B33)

Criterion B. Sample Associated Blank

B1	Sample is not listed on Form 4C. (B33)
B2	Form 4C header has missing values for variable(s): [Analysis Date/Column 2 Analysis Date/Analysis Time-Blank/Column 2 Blank Analysis Time/Extraction Method/Extraction Date/GC Column ID/Instrument ID]. (B33)
B3	[Analysis Date-Blank/Column 2 Analysis Date] not reported on Form 4C. (B33)
B4	Concentration of [compound] in the blank exceeds SOW-specifications. (E48)

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B5	No blank for sample extracted on [DDMMYY]. (E48)
B6	[Chromatograph/Quantitation Report] not submitted for the associated blank. (B16)*
B7	Associated blank is not reported on a Form 1D. (E11)
B8	Compliance cannot be determined - Matrix on Form 1D for the blank is not the same as the value reported on Form 1D for the sample. (B26)
B9	Compliance cannot be determined - [Date of Analysis/Time of Analysis/Instrument ID/GC column ID] of the blank reported on Form 4C is not the same as reported on its associated Form 8E. (B27, B33)
B10	SOW-specified format for EPA Sample No. not followed for blank reported on Form [1D/4C/8E]. (B21)

Criterion C. DDT Check

C1	Retention time for DDT not reported on Form 9. (B40)
C2	Retention time for DDT is less than 12 minutes on Form 9 - Column phase is not OV1 or OV101. (D42, E53, E61)

Criterion D. Retention Time Window

D1	RT 1 reported but RT windows missing for compound [compound] on Form 9. (B40, B41)
D2	RT reported on Form 9 for [compound] on [Column 1/ Column 2] is not within the reported RT window. (E61, E62)

Criterion E. Analytical Sequence

E1	Sample does not have an associated Form 8E. (B38)
E2	Form 8E header is missing values for variable(s): [GC Column ID/Instrument ID/Initial Calibration Date]. (B38)
E3	[Date of Analysis Missing/Time of Analysis Missing/Date and Time of Analysis Not Chronological] on Form 8E for sample. (B34)
E4	Analytical sequence exceeds 72 hours on Form 8E. (B40, D37, D39, E53)
E5	SOW-specified sequence of standards not followed. (B39)
E6	[EVAL B/IND A/IND B/ IND AB] not analyzed [in SOW-specified/at the end of the analytical] sequence. (D39, E55, E58, E60)
E7	More than 5 samples analyzed between standards. (D37, E60)
E8	[Chromatogram/Quantitation Report] not submitted for [Sample/Standard] analyzed at [hhmm] reported on Form 8E for [Column 1/Column 2]. (B15)*

E9	[Date of Analysis/Time of Analysis/Instrument ID/GC Column ID] for [Sample/Standard] analyzed at [hhmm] reported on Form 8E for [Column1/Column2] is not present. (B15,B31)*
E10	SOW-specified format for EPA Sample No. not followed for [Sample/Standard] [number] reported on Form 8E. (B20, B21)

Criterion F. DDT/Endrin Degradation Check

F1	[Date of Analysis/Time of Analysis/[Endrin/DDT] combined breakdown] missing for EVAL MIX B sequence number [number] reported on Form 8D. (B32)
F2	[Endrin Breakdown/4,4-DDT Breakdown/Combined Breakdown] exceeds 20.0%. (D38, D39)
F3	[Chromatogram/Quantitation Report] not submitted for EVAL MIX B sequence number [] reported on Form 8D. (B15)*
F4	Compliance cannot be determined - [Date of Analysis/Time of Analysis/Instrument ID] on associated EVAL B standard [Chromatogram/Quantitation Report] is present. (B15,B31)*

Criterion G. DBC Retention Time Check

G1	% D missing from Form 8E. (B39)
G2	DBC %D for [Sample/Standard/Blank] analyzed at [hhmm] on [Column 1/Column 2] exceeds [0.3%/1.5%/2.0%] for [Capillary/Wide-bore/Packed] column. (E56)

Criterion H. Matrix Spike/Matrix Spike Duplicate

H1	No Form [3E/3F] submitted applicable to this sample. (B32)

Criterion I. Initial Calibration - Evaluation Check for Linearity

I1	Sample does not have an associated Form 8D. (B37)
I2	Form 8D header is missing values for variable(s): [Column Designator/Lab File ID/Initial Calibration Date/Instrument ID/Level/Matrix]. (B37)
I3	[Chromatogram/Quantitation Report] not submitted for EVAL [A/B/C] standard. (B15)*
I4	[Calibration Factor/%RSD] is (are) not reported. (B37)
I5	% RSD for [compound] greater than 10.0%. (B37, E56, E62)
I6	Sample analyzed before identified associated evaluation check for linearity. (D34)

I7 Compliance cannot be determined - [Date of Analysis/Time of Analysis/Instrument ID] on EVAL [A/B/C] [Chromatogram/Quantitation Report] is not present. (B15,B31)*

Criterion J. Continuing Calibration

J1 Sample does not have an associated Form 8D.

J2 Form 9 header is missing values(s) for : [Column 2 Blank Analysis Time]. (B40)

J3 [RT from/RT To/RT/Calibration Factor/QNT Y/N/%D] missing for [all] compound(s) [compound] on Form 9 for [column 1/2]. (B40)

J4 [EVAL B/IND A/IND B/IND AB] not analyzed [in SOW-specified sequence/at the end of the analytical sequence]. (E57)

J5 Reported %D value is incorrect given the reported calibration factors for compound(s): [compound] on Form 9. (B41, E59)

J6 Reported %D value is above limit determined by reported QNT Y/N value for compound(s): [compound] on Form 9. (B41, E59)

J7 [Chromatogram/Quantitation report] not submitted for [IND A/IND B/IND AB/Toxaphene/Aroclor[1016/1221/1232/1242/1248/1254/1260/1660]] analyzed at [hhmm]. (B15)*

J8 Compliance cannot be determined - [Date of Analysis [from/to]/time of analysis [from/to]] for [IND A/IND B/IND AB/Toxaphene/Aroclor [1016/1221/1232/1242/1248/1254/1260]] is not the same as the value on [Form 8]. (B15, B33, B34)

J9 "From" analysis date occurs after "To" analysis date. (B40)

Criterion K. Form 1, Form 2, Form 10, MS/MSD-Specific Data and Traffic Report

1. Form 1

K1.1 Form 1D not submitted for sample. (B23)

K1.2 Improper EPA Sample No. for a reanalysis. (B20)

K1.3 Compound is [Missing/Unidentified] on Form [1D/3E/3F/9/10]. (B27, E51)

K1.4 [Concentration Units/Level] are missing on Form 1D. (B26, B28)

K1.5 Compound result value on Form 1D is not reported for compound [compound]. (B27)

K1.6 Compliance cannot be determined - [Analysis Date/Analysis Date-Blank/Extract Date/Level/Matrix/Result qualifier] on Form 1D is not the same as the value reported on Form [4C/10]. (B26, B27)

K1.7	CAS number, [number] on Form 1D is not valid for a PEST/PCB TCL compound. (C6)
K1.8	Quantitation limit of compound(s): [compound] qualified "U" on Form 1D is incorrect given reported header information and SOW-specified CRQL values. (B29)
K1.9	Qualifier for TCL compound(s): [compound] on Form 1D does not include "B", but the compound is present in the associated blank above the SOW-specified reporting level. (B30)

2. Form 2

K2.1	Sample is not listed on Form [2E/2F]. (B31)
K2.2	Form [2E/2F] header has missing values for variable(s): [matrix]. (B26, B31)
K2.3	S1 [recovery value/recovery out flag] not reported on Form [2E/2F]. (B31)
K2.4	Compliance cannot be determined - [matrix/level] association on Form [2E/2F] is not the same as on Form [ ]. (B36)
K2.5	D flag listed on Form [2C/2D], but dilution factor not greater than 1. (B30)

3. Form 10

K3.1	Form 10 header is missing values for variable(s): [Lab File ID]. (B42)
K3.2	Reported RT is not within RT windows on Form 10. (D40, D44)
K3.3	[ ] is (are) not reported on Form 10. (B42)

4. Traffic Report

K4.1	TR not submitted. (B4)*
K4.2	[Date Received/Recipient Signature/Case No./SDG No./EPA Sample ID/Lab Code] not reported on TR. (B4)*
K4.3	Holding time cannot be verified - [Date Received/Case No./SDG No./Lab Code] are not the same as reported on Form 1D. (B4/B19)*

5. MS/MSD Specific Data

K5.1	SOW-specified format not followed for EPA Sample ID reported on Form [1D/3C/3D]. (B25)
K5.2	Form 1D header has missing values for variable(s): [Concentration Units/Dilution Factor/Extraction Method/Extraction Date/GPC Cleanup/Level]. (B27, B28)

K5.3 [Spike Added/Result/MSD Concentration/% Rec Out Flag/MS Concentration] not reported for Compound [compound] on Form [3E/3F]. (B32)

K5.4 [MS % Rec Out Flag/MS % Rec/ MSD % Rec Out Flag/MSD % Rec/MSD % RPD/ MSD % RPD Out Flag/Total RPD/Spike Recovery/Spike Recovery-Out/Spike Recovery Total] is (are) not reported on Form [3E/3F]. (B32, B33, E51, E52)

K5.5 No Form ID for (MS/MSD) for the matrix/level combination of this sample. (E50)

Appendix D
DATA FORMATS
(SOW EXHIBIT H)

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EXHIBIT H

DATA DICTIONARY AND FORMAT FOR DATA DELIVERABLES IN COMPUTER-READABLE FORMAT

Page

SECTION I: Description of Deliverables H-2

SECTION II: Format A Specifications H-3

SECTION III: Format B Specifications H-63

SECTION I

DESCRIPTION OF DELIVERABLE

1. Introduction

1.1 Two file formats are specified for delivery of computer-readable data. Format A is oriented to the structure of the hardcopy reporting forms required by the contract. Format B is oriented to the general data required by the contract. Information sufficient to generate required hardcopy forms is contained in either format.

1.2 The file or files for a Sample Delivery Group (SDG, see Exhibit A, Section I, B) must be submitted on a diskette or diskettes (see Deliverable, 2.1). Information on a diskette or diskettes for any single SDG must be in one, and only one, of the two formats. The format used is at the option of the laboratory. The option used must be included in the File Name specification (paragraph 2.2).

1.3 Format A consists of variable length ASCII records, and Format B consists of fixed-length 80-byte ASCII records.

1.4 All information for one SDG must be in one file if format A is used. Use of Format B may require information for one SDG to be in a number of files. Format B may require more than one 360 K diskette for a valid SDG.

2. Deliverable

2.1 The file or files must be submitted on a 5-1/4 inch floppy diskette, which may be either a double-sided, double density, 360 K-byte or a high capacity 1.2 M-byte diskette. The diskette or diskettes must contain all information relevant to one and only one SDG, and must accompany the hardcopy package for the SDG submitted to the Sample Management Office (see Exhibit B). Information on the diskette or diskettes must correspond exactly with information submitted in the hardcopy data package and on the hardcopy data package forms. Blank or unused records in either format should not be included on the diskettes.

2.2 Each diskette must be identified with an external label containing (in this order) the following information:

Disk Density
File Name(s)
Laboratory Name (optional)
Laboratory Code
Case Number (where applicable)
SAS Number (where applicable)

SECTION II

FORMAT A SPECIFICATION

1. Format Characteristics

1.1 Format A is based upon the structure of the hardcopy reporting forms required by the contract. With two exceptions, Form Suffix and Record Type, all fields in the format correspond directly with entries or items on the hardcopy forms. The record structure is obtained by taking entries in sequence from the appropriate hardcopy form. For example, the Header record (page H-7) from Form 1A is a concatenation of all entries on the hardcopy form that precede the reported results and qualifiers.

1.2 All Format A fields are character. Alphanumeric values should be left justified and numeric values should be right justified in appropriate fields. Field lengths are such that all possible valid values can be written to the file. The maximum format is specified for each field. For example, "Numeric 13.3" is specified for "Result" on Detail Record D1 of Form 1A (see page H-7). Numeric values reported may take any form (e.g., integer 13, integer 3, real 13.3, real 5.1, etc.) provided they do not exceed the specifications. (Requirements for the number of significant figures to be reported on the appropriate hardcopy form are given in the Form Instruction Guide, Exhibit B, Section III.)

2. Record Types

2.1 Format A consists of variable length ASCII records. The last two bytes of each record must contain "carriage return" and "line feed", respectively. Unused bytes in partially filled fields must be blank-filled.

2.2 Format A has three types of records: Header Records, Detail Records and Comment Records.

Type	Type ID	Contents
Header	H	Nonrepeating fields which together are unique to the associated hardcopy form
Detail	D	A group of fields that are repeated on a form, and are uniquely positioned by (e.g.) CAS Number or Sequence Number
Comment	C	Nonrepeating fields containing text that comments on information reported on the form

3. Record Length

Table 3.1 summarizes the length and (in parantheses) the number of records in Format A. The maximum number of detail and comment records is shown, corresponding to a submission of hardcopy forms on which information is written on all possible lines. The Form Totals are the maximum lengths (excluding carriage return/line feed) required for a complete set of each type of form.

Table 3.1 Format A Summary

Form	Record				
	Header	Detail		Comment	
	H1	D1	D2	C1	C2
1A	153[a](1)[b]	35(34)			
1B	168 (1)	35(33)			
1C	168 (1)	35(32)			
1D	168 (1)	35(27)			
1E	155 (1)	71(30)			
1F	170 (1)	71(30)			
1(Total)	982 (6)	8670(186)			
2A	67(1)	37(30)			
2B	70(1)	37(30)			
2C	67(1)	49(30)			
2D	70(1)	49(30)			
2E	67(1)	28(30)			
2F	70(1)	28(30)			
2(Total)	411(6)	6840(180)			
3A	85(1)	70(5)	61(5)	72(1)	72(1)
3B	84(1)	70(5)	61(5)	72(1)	72(1)
3C	85(1)	70(11)	61(11)	72(1)	72(1)
3D	88(1)	70(11)	61(11)	72(1)	72(1)
3E	85(1)	70(6)	61(6)	72(1)	72(1)
3F	988(1)	70(6)	61(6)	72(1)	72(1)
3(Total)	519(6)	3080(44)	2684(44)	432(6)	432(6)
4A	123(1)	51(30)	72(1)	72(1)	
4B	135(1)	55(30)	72(1)	72(1)	
4C	177(1)	49(26)	72(1)	72(1)	
4(Total)	435(3)	4454(86)	216(3)	216(3)	
5A	115(1)	20(9)	59(24)		
5B	103(1)	21(13)	59(22)		
5(Total)	218(2)	453(22)	2714(46)		

Table 3.1 Format A Summary

Form	Record				
	Header	Detail		Comment	
	H1	D1	D2	C1	C2
6A	173(1)	69(37)			
6B	161(1)	69(37)			
6C	161(1)	69(36)			
6(Total)	495(3)	7590(110)			
7A	129(1)	49(37)			
7B	117(1)	49(37)			
7C	117(1)	49(36)			
7(Total)	363(3)	5390(110)			
8A	115(1)	106(1)	69(26)		
8B	103(1)	106(1)	69(22)		
8C	103(1)	106(1)	69(22)		
8D	101(1)	58(4)	36(14)		
8E	103(1)	51(38)			
8(Total)	525(5)	2488(45)	5334(84)		
9	135(1)	72(27)			
9(Total)	135(1)	1944(27)			
10	145(1)	43(6)	43(6)	72(1)	72(1)
10(Total)	145(1)	258(6)	258(6)	72(1)	72(1)

a - length of record in bytes (excluding carriage return/line feed)

b - maximum number of records required for a form.

4. Form Suffix

The fourth and fifth bytes of each record contain the form suffix (AA-ZZ), which must be unique (within a type of form (e.g., Form IA, Form IIC, etc.,) for each set of records that corresponds to one hardcopy form. For example, the form suffix for records for the first occurrence in the file of a Form 1C must be AA. The second occurrence must be AB, and the twenty-eighth must be BA.

5. Record Listing

The remainder of this section contains detailed specifications for every record required for a full set of hardcopy forms.

FORM I FILE DESCRIPTION
(FORM1)

VOLATILE ORGANICS ANALYSIS DATA SHEET - (FORM 1A)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'1A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 19	12	EPA SAMPLE NO.	
20- 44	25	LAB NAME	
45- 55	11	CONTRACT	
56- 61	6	LAB CODE	
62- 66	5	CASE NO.	
67- 72	6	SAS NO.	
73- 77	5	SDG NO.	
78- 82	5	MATRIX	'SOIL ' OR 'WATER'
83- 94	12	LAB SAMPLE ID	
95- 99	5	SAMPLE WT/VOL	NUMERIC 5.1
100-101	2	SAMPLE WT/VOL UNITS	'G ' OR 'ML'
102-115	14	LAB FILE ID	
116-118	3	LEVEL	'LOW' OR 'MED'
119-126	8	DATE RECEIVED	MM/DD/YY
127-128	2	%MOISTURE NOT DEC	NUMERIC 2
129-136	8	DATE ANALYZED	MM/DD/YY
137-140	4	COLUMN	'PACK' OR 'CAP '
141-148	8	DILUTION FACTOR	NUMERIC 8
149-153	5	CONCENTRATION UNITS	'UG/L ' OR 'UG/KG'

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1-3	3	FORM NUMBER	'1A'
4-5	2	FORM SUFFIX	'AA'-'ZZ'
6-7	2	RECORD TYPE	'D1'
8-17	10	CAS NO.	
18-30	13	RESULT	NUMERIC 13.3
31-35	5	QUALIFIER (Q)	

SEMIVOLATILE ORGANICS ANALTSIS DATA SHEET - (FORM 1B)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'1B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 19	12	EPA SAMPLE NO.	
20- 44	25	LAB NAME	
45- 55	11	CONTRACT	
56- 61	6	LAB CODE	
62- 66	5	CASE NO.	
67- 72	6	SAS NO.	
73- 77	5	SDG NO.	
78- 82	5	MATRIX	'SOIL ' OR 'WATER'
83- 94	12	LAB SAMPLE ID	
95- 99	5	SAMPLE WT/VOL	NUMERIC 5.1
100-101	2	SAMPLE WT/VOL UNITS	'G ' OR 'ML'
102-115	14	LAB FILE ID	
116-118	3	LEVEL	'LOW' OR 'MED'
119-126	8	DATE RECEIVED	MM/DD/YY
127-128	2	% MOISTURE NOT DEC	NUMERIC 2
129-130	2	% MOISTURE DEC	NUMERIC 2
131-138	8	DATE EXTRACTED	MM/DD/YY
139-142	4	EXTRACTION	'SEPF', 'CONT' OR 'SONC'
143-150	8	DATE ANALYZED	MM/DD/YY
151	1	GPC CLEANUP	'Y' OR 'N'
152-155	4	PH	NUMERIC 4.1
156-163	8	DILUTION FACTOR	NUMERIC 8
164-168	5	CONCENTRATION UNITS	'UG/L ' OR 'UG/KG'

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'1B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-17	10	CAS NO.	
18-30	13	RESULT	NUMERIC 13.3
31-35	5	QUALIFIER (Q)	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET - (FORM 1C)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'1C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 19	12	EPA SAMPLE NO.	
20- 44	25	LAB NAME	
45- 55	11	CONTRACT	
56- 61	6	LAB CODE	
62- 66	5	CASE NO.	
67- 72	6	SAS NO.	
73- 77	5	SDG NO.	
78- 82	5	MATRIX	'SOIL ' OR 'WATER'
83- 94	12	LAB SAMPLE ID	
95- 99	5	SAMPLE WT/VOL	NUMERIC 5.1
100-101	2	SAMPLE WT/VOL UNITS	'G ' OR 'ML'
102-115	14	LAB FILE ID	
116-118	3	LEVEL	'LOW' OR 'MED'
119-126	8	DATE RECEIVED	MM/DD/YY
127-128	2	% MOISTURE NOT DEC	NUMERIC 2
129-130	2	% MOISTURE DEC	NUMERIC 2
131-138	8	DATE EXTRACTED	MM/DD/YY
139-142	4	EXTRACTION	'SEPF', 'CONT' OR 'SONC'
143-150	8	DATE ANALYZED	MM/DD/YY
151	1	GPC CLEANUP	'Y' OR 'N'
152-155	4	PH	NUMERIC 4.1
156-163	8	DILUTION FACTOR	NUMERIC 8
164-168	5	CONCENTRATION UNITS	'UG/L ' OR 'UG/KG'

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'1C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-17	10	CAS NO.	
18-30	13	RESULT	NUMERIC 13.3
31-35	5	QUALIFIER (Q)	

PESTICIDE ORGANICS ANALYSIS DATA SHEET - (FORM 1D)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'1D'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 19	12	EPA SAMPLE NO.	
20- 44	25	LAB NAME	
45- 55	11	CONTRACT	
56- 61	6	LAB CODE	
62- 66	5	CASE NO.	
67- 72	6	SAS NO.	
73- 77	5	SDG NO.	
78- 82	5	MATRIX	'SOIL ' OR 'WATER'
83- 94	12	LAB SAMPLE ID	
95- 99	5	SAMPLE WT/VOL	NUMERIC 5.1
100-101	2	SAMPLE WT/VOL UNITS	'G ' OR 'ML'
102-115	14	LAB FILE ID	
116-118	3	LEVEL	'LOW' OR 'MED'
119-126	8	DATE RECEIVED	MM/DD/YY
127-128	2	% MOISTURE NOT DEC	NUMERIC 2
129-130	2	% MOISTURE DEC	NUMERIC 2
131-138	8	DATE EXTRACTED	MM/DD/YY
139-142	4	EXTRACTION	'SEPF', 'CONT' OR 'SONC'
143-150	8	DATE ANALYZED	MM/DD/YY
151	1	GPC CLEANUP	'Y' OR 'N'
152-155	4	PH	NUMERIC 4.1
156-163	8	DILUTION FACTOR	NUMERIC 8
164-168	5	CONCENTRATION UNITS	'UG/L ' OR 'UG/KG'

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'1D'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-17	10	CAS NO.	
18-30	13	RESULT	NUMERIC 13.3
31-35	5	QUALIFIER (Q)	

VOLATILE ORGANICS ANALYSIS DATA SHEET - (FORM 1E)
TENTATIVELY IDENTIFIED COMPOUNDS

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'1E'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 19	12	EPA SAMPLE NO.	
20- 44	25	LAB NAME	
45- 55	11	CONTRACT	
56- 61	6	LAB CODE	
62- 66	5	CASE NO.	
67- 72	6	SAS NO.	
73- 77	5	SDG NO.	
78- 82	5	MATRIX	'SOIL ' OR 'WATER'
83- 94	12	LAB SAMPLE ID	
95- 99	5	SAMPLE WT/VOL	NUMERIC 5.1
100-101	2	SAMPLE WT/VOL UNITS	'G ' OR 'ML'
102-115	14	LAB FILE ID	
116-118	3	LEVEL	'LOW' OR 'MED'
119-126	8	DATE RECEIVED	MM/DD/YY
127-128	2	% MOISTURE NOT DEC	NUMERIC 2
129-136	8	DATE ANALYZED	MM/DD/YY
137-140	4	COLUMN	'PACK' OR 'CAP '
141-148	8	DILUTION FACTOR	NUMERIC 8
149-150	2	NUMBER TICS FOUND	NUMERIC 2
151-155	5	CONCENTRATION UNITS	'UG/L ' OR 'UG/KG'

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'1E'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-19	10	CAS NO.	
20-47	28	COMPOUND	
48-53	6	RT	NUMERIC 6.2
54-66	13	ESTIMATED CONCENTRATION	NUMERIC 13.3
67-71	5	QUALIFIER (Q)	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET - (FORM 1F)
TENTATIVELY IDENTIFIED COMPOUNDS

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'1F'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 19	12	EPA SAMPLE NO.	
20- 44	25	LAB NAME	
45- 55	11	CONTRACT	
56- 61	6	LAB CODE	
62- 66	5	CASE NO.	
67- 72	6	SAS NO.	
73- 77	5	SDG NO.	
78- 82	5	MATRIX	'SOIL ' OR 'WATER'
83- 94	12	LAB SAMPLE ID	
95- 99	5	SAMPLE WT/VOL	NUMERIC 5.1
100-101	2	SAMPLE WT/VOL UNITS	'G ' OR 'ML'
102-115	14	LAB FILE ID	
116-118	3	LEVEL	'LOW' OR 'MED'
119-126	8	DATE RECEIVED	MM/DD/YY
127-128	2	% MOISTURE NOT DEC	NUMERIC 2
129-130	2	% MOISTURE DEC	NUMERIC 2
131-138	8	DATE EXTRACTED	MM/DD/YY
139-142	4	EXTRACTION	'SEPF', 'CONT' OR 'SONC'
143-150	8	DATE ANALYZED	MM/DD/YY
151	1	GPC CLEANUP	'Y' OR 'N'
152-155	4	PH	NUMERIC 4.1
156-163	8	DILUTION FACTOR	NUMERIC 8
164-165	2	NUMBER TICS FOUND	NUMERIC 2
166-170	5	CONCENTRATION UNITS	'UG/L ' OR 'UG/KG'

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'1F'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-19	10	CAS NO.	
20-47	28	COMPOUND	
48-53	6	RT	NUMERIC 6.2
54-66	13	ESTIMATED CONCENTRATION	NUMERIC 13.3
67-71	5	QUALIFIER (Q)	

FORM II FILE DESCRIPTION
(FORM2)

WATER VOLATILE SURROGATE RECOVERY - (FORM 2A)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'2A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8-32	25	LAB NAME	
33-43	11	CONTRACT	
44-49	6	LAB CODE	
50-54	5	CASE NO.	
55-60	6	SAS NO.	
61-65	5	SDG NO.	
66	1	PAGE	NUMERIC 1
67	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'2A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-21	12	EPA SAMPLE NO.	
22-24	3	S1 (TOL)	NUMERIC 3
25	1	S1 OUT FLAG	BLANK OR 'D' OR '*'
26-28	3	S2 (BFB)	NUMERIC 3
29	1	S2 OUT FLAG	BLANK OR 'D' OR '*'
30-32	3	S3 (DCE)	NUMERIC 3
33	1	S3 OUT FLAG	BLANK OR 'D' OR '*'
34-36	3	OTHER	NUMERIC 3
37	1	TOTAL OUT	NUMERIC 1

SOIL VOLATILE SURROGATE RECOVERY - (FORM 2B)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'2B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8-32	25	LAB NAME	
33-43	11	CONTRACT	
44-49	6	LAB CODE	
50-54	5	CASE NO.	
55-60	6	SAS NO.	
61-65	5	SDG NO.	
66-68	3	LEVEL	'LOW' OR 'MED'
69	1	PAGE	NUMERIC 1
70	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'2B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-21	12	EPA SAMPLE NO.	
22-24	3	S1 (TOL)	NUMERIC 3
25	1	S1 OUT FLAG	BLANK OR 'D' OR '*'
26-28	3	S2 (BFB)	NUMERIC 3
29	1	S2 OUT FLAG	BLANK OR 'D' OR '*'
30-32	3	S3 (DCE)	NUMERIC 3
33	1	S3 OUT FLAG	BLANK OR 'D' OR '*'
34-36	3	OTHER	NUMERIC 3
37	1	TOTAL OUT	NUMERIC 1

WATER SEMIVOLATILE SURROGATE RECOVERY - (FORM 2C)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'2C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8-32	25	LAB NAME	
33-43	11	CONTRACT	
44-49	6	LAB CODE	
50-54	5	CASE NO.	
55-60	6	SAS NO.	
61-65	5	SDG NO.	
66	1	PAGE	NUMERIC 1
67	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'2C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-21	12	EPA SAMPLE NO.	
22-24	3	S1 (NBZ)	NUMERIC 3
25	1	S1 OUT FLAG	BLANK OR 'D' OR '*'
26-28	3	S2 (FBP)	NUMERIC 3
29	1	S2 OUT FLAG	BLANK OR 'D' OR '*'
30-32	3	S3 (TPH)	NUMERIC 3
33	1	S3 OUT FLAG	BLANK OR 'D' OR '*'
34-36	3	S4 (PHL)	NUMERIC 3
37	1	S4 OUT FLAG	BLANK OR 'D' OR '*'
38-40	3	S5 (2FP)	NUMERIC 3
41	1	S5 OUT FLAG	BLANK OR 'D' OR '*'
42-44	3	S6 (TBP)	NUMERIC 3
45	1	S6 OUT FLAG	BLANK OR 'D' OR '*'
46-48	3	OTHER	NUMERIC 3
49	1	TOTAL OUT	NUMERIC 1

SOIL SEMIVOLATILE SURROGATE RECOVERY - (FORM 2D)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'2D'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8-32	25	LAB NAME	
33-43	11	CONTRACT	
44-49	6	LAB CODE	
50-54	5	CASE NO.	
55-60	6	SAS NO.	
61-65	5	SDG NO.	
66-68	3	LEVEL	'LOW' OR 'MED'
69	1	PAGE	NUMERIC 1
70	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'2D'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-21	12	EPA SAMPLE NO.	
22-24	3	S1 (NBZ)	NUMERIC 3
25	1	S1 OUT FLAG	BLANK OR 'D' OR '*'
26-28	3	S2 (FBP)	NUMERIC 3
29	1	S2 OUT FLAG	BLANK OR 'D' OR '*'
30-32	3	S3 (TPH)	NUMERIC 3
33	1	S3 OUT FLAG	BLANK OR 'D' OR '*'
34-36	3	S4 (PHL)	NUMERIC 3
37	1	S4 OUT FLAG	BLANK OR 'D' OR '*'
38-40	3	S5 (2FP)	NUMERIC 3
41	1	S5 OUT FLAG	BLANK OR 'D' OR '*'
42-44	3	S6 (TBP)	NUMERIC 3
45	1	S6 OUT FLAG	BLANK OR 'D' OR '*'
46-48	3	OTHER	NUMERIC 3
49	1	TOTAL OUT	NUMERIC 1

WATER PESTICIDE SURROGATE RECOVERY - (FORM 2E)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'2E'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8-32	25	LAB NAME	
33-43	11	CONTRACT	
44-49	6	LAB CODE	
50-54	5	CASE NO.	
55-60	6	SAS NO.	
61-65	5	SDG NO.	
66	1	PAGE	NUMERIC 1
67	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'2E'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-21	12	EPA SAMPLE NO.	
22-24	3	S1 (DBC)	NUMERIC 3
25	1	S1 OUT FLAG	BLANK OR 'D' OR '*'
26-28	3	OTHER	NUMERIC 3

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SOIL PESTICIDE SURROGATE RECOVERY - (FORM 2F)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'2F'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8-32	25	LAB NAME	
33-43	11	CONTRACT	
44-49	6	LAB CODE	
50-54	5	CASE NO.	
55-60	6	SAS NO.	
61-65	5	SDG NO.	
66-68	3	LEVEL	'LOW' OR 'MED'
69	1	PAGE	NUMERIC 1
70	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'2F'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-21	12	EPA SAMPLE NO.	
23-24	3	S1 (DBC)	NUMERIC 3
25	1	S1 OUT FLAG	BLANK OR 'D' OR '*'
26-28	3	OTHER	NUMERIC 3

FORM III FILE DESCRIPTION
(FORM3)

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY - (FORM3A)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8-32	25	LAB NAME	
33-43	11	CONTRACT	
44-49	6	LAB CODE	
50-54	5	CASE NO.	
55-60	6	SAS NO.	
61-65	5	SDG NO.	
66-77	12	MATRIX SPIKE - EPA SAMPLE NO.	
78-79	2	RPD: # OUTSIDE QC LIMITS	NUMERIC 2
80-81	2	RPD: TOTAL	NUMERIC 2
82-83	2	SPIKE RECOVERY: # OUT	NUMERIC 2
84-85	2	SPIKE RECOVERY: TOTAL	NUMERIC 2

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-31	24	COMPOUND	
32-40	9	SPIKE ADDED (UG/L)	NUMERIC 9.3
41-53	13	SAMPLE CONC. (UG/L)	NUMERIC 13.3
54-66	13	MS CONC.(UG/L)	NUMERIC 13.3
67-69	3	MS% REC.	NUMERIC 3
70	1	MS% REC. FLAG	BLANK OR '*'

DETAIL RECORD 2 (D2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D2'
8-31	24	COMPOUND	
32-40	9	SPIKE ADDED (UG/L)	NUMERIC 9.3
41-53	13	MSD CONC. (UG/L)	NUMERIC 13.3
54-56	3	MSD% REC.	NUMERIC 3
57	1	MSD% REC. OUT FLAG	BLANK OR '*'
58-60	3	% RPD	NUMERIC 3
61	1	% RPD OUT FLAG	BLANK OR '*'

COMMENT RECORD 1 (C1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C1'
8-72	65	COMMENT LINE 1	

COMMENT RECORD 2 (C2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C2'
8-72	65	COMMENT LINE 2	

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY - (FORM3B)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8-32	25	LAB NAME	
33-43	11	CONTRACT	
44-49	6	LAB CODE	
50-54	5	CASE NO.	
55-60	6	SAS NO.	
61-65	5	SDG NO.	
66-77	12	MATRIX SPIKE - EPA SAMPLE NO.	
78-80	3	LEVEL	'LOW' OR 'MED'
81-82	2	RPD: # OUTSIDE QC LIMITS	NUMERIC 2
83-84	2	RPD: TOTAL	NUMERIC 2
85-86	2	SPIKE RECOVERY: # OUT	NUMERIC 2
87-88	2	SPIKE RECOVERY: TOTAL	NUMERIC 2

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-31	24	COMPOUND	
32-40	9	SPIKE ADDED (UG/L)	NUMERIC 9.3
41-53	13	SAMPLE CONC. (UG/KG)	NUMERIC 13.3
54-66	13	MS CONC. (UG/KG)	NUMERIC 13.3
67-69	3	MS% REC.	NUMERIC 3
70	1	MS% REC. FLAG	BLANK OR '*'

DETAIL RECORD 2 (D2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D2'
8-31	24	COMPOUND	
32-40	9	SPIKE ADDED (UG/L)	NUMERIC 9.3
41-53	13	MSD CONC. (UG/KG)	NUMERIC 13.3
54-56	3	MSD% REC.	NUMERIC 3
57	1	MSD% REC. OUT FLAG	BLANK OR '*'
58-60	3	% RPD	NUMERIC 3
61	1	% RPD OUT FLAG	BLANK OR '*'

COMMENT RECORD 1 (C1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C1'
8-72	65	COMMENT LINE 1	

COMMENT RECORD 2 (C2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C2'
8-72	65	COMMENT LINE 2	

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WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY-(FORM3C)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8-32	25	LAB NAME	
33-43	11	CONTRACT	
44-49	6	LAB CODE	
50-54	5	CASE NO.	
55-60	6	SAS NO.	
61-65	5	SDG NO.	
66-77	12	MATRIX SPIKE - EPA SAMPLE NO.	
78-79	2	RPD: # OUTSIDE QC LIMITS	NUMERIC 2
80-81	2	RPD: TOTAL	NUMERIC 2
82-83	2	SPIKE RECOVERY: # OUT	NUMERIC 2
84-85	2	SPIKE RECOVERY: TOTAL	NUMERIC 2

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-31	24	COMPOUND	
32-40	9	SPIKE ADDED (UG/L)	NUMERIC 9.3
41-53	13	SAMPLE CONC. (UG/L)	NUMERIC 13.3
54-66	13	MS CONC. (UG/L)	NUMERIC 13.3
67-69	3	MS% REC.	NUMERIC 3
70	1	MS% REC. OUT FLAG	BLANK OR '*'

DETAIL RECORD 2 (D2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D2'
8-31	24	COMPOUND	
32-40	9	SPIKE ADDED (UG/L)	NUMERIC 9.3
41-53	13	MSD CONC. (UG/L)	NUMERIC 13.3
54-56	3	MSD% REC.	NUMERIC 3
57	1	MSD% REC. OUT FLAG	BLANK OR '*'
58-60	3	% RPD	NUMERIC 3
61	1	% RPD OUT FLAG	BLANK OR '*'

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COMMENT RECORD 1 (C1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C1'
8-72	65	COMMENT LINE 1	

COMMENT RECORD 2 (C2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C2'
8-72	65	COMMENT LINE 2	

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY - (FORM3D)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3D'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8-32	25	LAB NAME	
33-43	11	CONTRACT	
44-49	6	LAB CODE	
50-54	5	CASE NO.	
55-60	6	SAS NO.	
61-65	5	SDG NO.	
66-77	12	MATRIX SPIKE - EPA SAMPLE NO.	
78-80	3	LEVEL	'LOW' OR 'MED'
81-82	2	RPD: # OUTSIDE QC LIMITS	NUMERIC 2
83-84	2	RPD: TOTAL	NUMERIC 2
85-86	2	SPIKE RECOVERY: # OUT	NUMERIC 2
87-88	2	SPIKE RECOVERY: TOTAL	NUMERIC 2

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3D'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-31	24	COMPOUND	
32-40	9	SPIKE ADDED (UG/KG)	NUMERIC 9.3
41-53	13	SAMPLE CONC. (UG/KG)	NUMERIC 13.3
54-66	13	MS CONC. (UG/KG)	NUMERIC 13.3
67-69	3	MS% REC.	NUMERIC 3
70	1	MS% REC. OUT FLAG	BLANK OR '*'

DETAIL RECORD 2 (D2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3D'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D2'
8-31	24	COMPOUND	
32-40	9	SPIKE ADDED (UG/KG)	NUMERIC 9.3
41-53	13	MSD CONC. (UG/KG)	NUMERIC 13.3
54-56	3	MSD% REC.	NUMERIC 3
57	1	MSD% REC. OUT FLAG	BLANK OR '*'
58-60	3	% RPD	NUMERIC 3
61	1	% RPD OUT FLAG	BLANK OR '*'

COMMENT RECORD 1 (C1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3D'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C1'
8-72	65	COMMENT LINE 1	

COMMENT RECORD 2 (C2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3D'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C2'
8-72	65	COMMENT LINE 2	

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY-(FORM3E)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3E'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8-32	25	LAB NAME	
33-43	11	CONTRACT	
44-49	6	LAB CODE	
50-54	5	CASE NO.	
55-60	6	SAS NO.	
61-65	5	SDG NO.	
66-77	12	MATRIX SPIKE - EPA SAMPLE NO.	
78-79	2	RPD: # OUTSIDE QC LIMITS	NUMERIC 2
80-81	2	RPD: TOTAL	NUMERIC 2
82-83	2	SPIKE RECOVERY: # OUT	NUMERIC 2
84-85	2	SPIKE RECOVERY: TOTAL	NUMERIC 2

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3E'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-31	24	COMPOUND	
32-40	9	SPIKE ADDED (UG/L)	NUMERIC 9.3
41-53	13	SAMPLE CONC. (UG/L)	NUMERIC 13.3
54-66	13	MS CONC. (UG/L)	NUMERIC 13.3
67-69	3	MS% REC.	NUMERIC 3
70	1	MS% REC. OUT FLAG	BLANK OR '*'

DETAIL RECORD 2 (D2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3E'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D2'
8-31	24	COMPOUND	
32-40	9	SPIKE ADDED (UG/L)	NUMERIC 9.3
41-53	13	MSD CONC.(UG/L)	NUMERIC 13.3
54-56	3	MSD% REC.	NUMERIC 3
57	1	MSD% REC. OUT FLAG	BLANK OR '*'
58-60	3	% RPD	NUMERIC 3
61	1	% RPD OUT FLAG	BLANK OR '*'

COMMENT RECORD 1 (C1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3E'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C1'
8-72	65	COMMENT LINE 1	

COMMENT RECORD 2 (C2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3E'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C2'
8-72	65	COMMENT LINE 2	

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY - (FORM3F)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3F'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8-32	25	LAB NAME	
33-43	11	CONTRACT	
44-49	6	LAB CODE	
50-54	5	CASE NO.	
55-60	6	SAS NO.	
61-65	5	SDG NO.	
66-77	12	MATRIX SPIKE - EPA SAMPLE NO.	
78-80	3	LEVEL	'LOW' OR 'MED'
81-82	2	RPD: # OUTSIDE QC LIMITS	NUMERIC 2
83-84	2	RPD: TOTAL	NUMERIC 2
85-86	2	SPIKE RECOVERY: # OUT	NUMERIC 2
87-88	2	SPIKE RECOVERY: TOTAL	NUMERIC 2

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3F'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-31	24	COMPOUND	
32-40	9	SPIKE ADDED (UG/KG)	NUMERIC 9.3
41-53	13	SAMPLE CONC. (UG/KG)	NUMERIC 13.3
54-66	13	MS CONC. (UG/KG)	NUMERIC 13.3
67-69	3	MS% REC.	NUMERIC 3
70	1	MS% REC. OUT FLAG	BLANK OR '*'

DETAIL RECORD 2 (D2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3F'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D2'
8-31	24	COMPOUND	
32-40	9	SPIKE ADDED (UG/KG)	NUMERIC 9.3
41-53	13	MSD CONC. (UG/KG)	NUMERIC 13.3
54-56	3	MSD% REC.	NUMERIC 3
57	1	MSD% REC. OUT FLAG	BLANK OR '*'
58-60	3	% RPD	NUMERIC 3
61	1	% RPD OUT FLAG	BLANK OR '*'

COMMENT RECORD 1 (C1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3F'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C1'
8-72	65	COMMENT LINE 1	

COMMENT RECORD 2 (C2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'3F'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C2'
8-72	65	COMMENT LINE 2	

FORM IV FILE DESCRIPTION
(FORM4)

VOLATILE METHOD BLANK SUMMARY - (FORM 4A)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'4A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 79	14	LAB FILE ID	
80- 91	12	LAB SAMPLE ID	
92- 99	8	DATE ANALYZED	MM/DD/YY
100-103	4	TIME ANALYZED	HHMM
104-108	5	MATRIX	'SOIL ' OR 'WATER'
109-111	3	LEVEL	'LOW' OR 'MED'
112-121	10	INSTRUMENT ID	
122	1	PAGE	NUMERIC 1
123	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'4A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-21	12	EPA SAMPLE NO.	
22-33	12	LAB SAMPLE ID	
34-47	14	LAB FILE ID	
48-51	4	TIME ANALYZED	HHMM

COMMENT RECORD 1 (C1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'4A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C1'
8-72	65	COMMENT LINE 1	

COMMENT RECORD 2 (C2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'4A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C2'
8-72	65	COMMENT LINE 2	

SEMIVOLATILE METHOD BLANK SUMMARY - (FORM 4B)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'4B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 79	14	LAB FILE ID	
80- 91	12	LAB SAMPLE ID	
92- 99	8	DATE EXTRACTED	MM/DD/YY
100-103	4	EXTRACTION	'SEPF', 'CONT' OR 'SONC'
104-111	8	DATE ANALYZED	MM/DD/YY
112-115	4	TIME ANALYZED	HHMM
116-120	5	MATRIX	'SOIL ' OR 'WATER'
121-123	3	LEVEL	'LOW' OR 'MED'
124-133	10	INSTRUMENT ID	
134	1	PAGE	NUMERIC 1
135	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'4B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-21	12	EPA SAMPLE NO.	
22-33	12	LAB SAMPLE ID	
34-47	14	LAB FILE ID	
48-55	8	DATE ANALYZED	MM/DD/YY

COMMENT RECORD 1 (C1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'4B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C1'
8-72	65	COMMENT LINE 1	

COMMENT RECORD 2 (C2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'4B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C2'
9-72	65	COMMENT LINE 2	

PESTICIDE METHOD BLANK SUMMARY - (FORM 4C)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'4C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 77	12	LAB SAMPLE ID	
78- 91	14	LAB FILE ID	
92- 96	5	MATRIX	'SOIL ' OR 'WATER'
97- 99	3	LEVEL	'LOW' OR 'MED'
100-107	8	DATE EXTRACTED	MM/DD/YY
108-111	4	EXTRACTION	'SEPF', 'CONT' OR 'SONC'
112-119	8	DATE ANALYZED (1)	MM/DD/YY
120-127	8	DATE ANALYZED (2)	MM/DD/YY
128-131	4	TIME ANALYZED (1)	HHMM
132-135	4	TIME ANALYZED (2)	HHMM
136-145	10	INSTRUMENT ID (1)	
146-155	10	INSTRUMENT ID (2)	
156-165	10	GC COLUMN ID (1)	
166-175	10	GC COLUMN ID (2)	
176	1	PAGE	NUMERIC 1
177	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'4C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-21	12	EPA SAMPLE NO.	
22-33	12	LAB SAMPLE ID	
34-41	8	DATE ANALYZED 1	MM/DD/YY
42-49	8	DATE ANALYZED 2	MM/DD/YY

COMMENT RECORD 1 (C1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'4C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C1'
8-72	65	COMMENT LINE 1	

COMMENT RECORD 2 (C2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'4C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C2'
8-72	65	COMMENT LINE 2	

FORM V FILE DESCRIPTION
(FORM5)

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VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - (FORM5A) BROMOFLUOROBENZENE (BFB)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'5A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 79	14	LAB FILE ID	
80- 87	8	BFB INJECTION DATE	MM/DD/YY
88- 97	10	INSTRUMENT ID	
98-101	4	BFB INJECTION TIME	HHMM
102-106	5	MATRIX	'SOIL ' OR 'WATER'
107-109	3	LEVEL	'LOW' OR 'MED'
110-113	4	COLUMN	'PACK' OR 'CAP '
114	1	PAGE	NUMERIC 1
115	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'5A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-10	3	M/E	NUMERIC 3
11-15	5	% RELATIVE ABUNDANCE	NUMERIC 5.1
16-20	5	% MASS (WHERE APPLICABLE)	NUMERIC 5.1

DETAIL RECORD 2 (D2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'5A'
4- 5	2	FORM SUFFIX	AA-ZZ
6- 7	2	RECORD TYPE	D2
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-21	12	EPA SAMPLE NO.	
22-33	12	LAB SAMPLE ID	
34-47	14	LAB FILE ID	
48-55	8	DATE ANALYZED	MM/DD/YY
56-59	4	TIME ANALYZED	HHMM

114

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - (FORM5B)
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'5B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 79	14	LAB FILE ID	
80- 87	8	DFTPP INJECTION DATE	MM/DD/YY
88- 97	10	INSTRUMENT ID	
98-101	4	DFTPP INJECTION TIME	HHMM
102	1	PAGE	NUMERIC 1
103	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'5B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-10	3	M/E	NUMERIC 3
11-16	6	% RELATIVE ABUNDANCE	NUMERIC 6.2
17-21	5	% MASS (WHERE APPLICABLE)	NUMERIC 5.1

DETAIL RECORD 2 (D2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'5B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D2'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-21	12	EPA SAMPLE NO.	
22-33	12	LAB SAMPLE ID	
34-47	14	LAB FILE ID	
48-55	8	DATE ANALYZED	MM/DD/YY
56-59	4	TIME ANALYZED	HHMM

115

FORM VI FILE DESCRIPTION
(FORM6)

116

VOLATILE ORGANICS INITIAL CALIBRATION DATA - (FORM 6A)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'6A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 75	10	INSTRUMENT ID	
76- 83	8	CALIBRATION DATE 1	MM/DD/YY
84- 91	8	CALIBRATION DATE 2	MM/DD/YY
92- 96	5	MATRIX	'SOIL ' OR 'WATER'
97- 99	3	LEVEL	'LOW' OR 'MED'
100-103	4	COLUMN	'PACK' OR 'CAP '
104-117	14	RRF20 LAB FILE ID	
118-131	14	RRF50 LAB FILE ID	
132-145	14	RRF100 LAB FILE ID	
146-159	14	RRF150 LAB FILE ID	
160-173	14	RRF200 LAB FILE ID	

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'6A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-34	27	COMPOUND	
35-39	5	RRF20	NUMERIC 5.3
40-44	5	RRF50	NUMERIC 5.3
45-49	5	RRF100	NUMERIC 5.3
50-54	5	RRF150	NUMERIC 5.3
55-59	5	RRF200	NUMERIC 5.3
60-64	5	AVERAGE RRF	NUMERIC 5.3
65-69	5	% RSD	NUMERIC 5.1

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA - (FORM 6B)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'6B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 75	10	INSTRUMENT ID	
76- 83	8	CALIBRATION DATE 1	MM/DD/YY
84- 91	8	CALIBRATION DATE 2	MM/DD/YY
92-105	14	RRF20 LAB FILE ID	
106-119	14	RRF50 LAB FILE ID	
120-133	14	RRF80 LAB FILE ID	
134-147	14	RRF120 LAB FILE ID	
148-161	14	RRF160 LAB FILE ID	

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'6B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-34	27	COMPOUND	
35-39	5	RRF20	NUMERIC 5.3
40-44	5	RRF50	NUMERIC 5.3
45-49	5	RRF80	NUMERIC 5.3
50-54	5	RRF120	NUMERIC 5.3
55-59	5	RRF160	NUMERIC 5.3
60-64	5	AVERAGE RRF	NUMERIC 5.3
65-69	5	% RSD	NUMERIC 5.1

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA - (FORM 6C)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'6C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 75	10	INSTRUMENT ID	
76- 83	8	CALIBRATION DATE 1	MM/DD/YY
84- 91	8	CALIBRATION DATE 2	MM/DD/YY
92-105	14	RRF20 LAB FILE ID	
106-119	14	RRF50 LAB FILE ID	
120-133	14	RRF80 LAB FILE ID	
134-147	14	RRF120 LAB FILE ID	
148-161	14	RRF160 LAB FILE ID	

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'6C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-34	27	COMPOUND	
35-39	5	RRF20	NUMERIC 5.3
40-44	5	RRF50	NUMERIC 5.3
45-49	5	RRF80	NUMERIC 5.3
50-54	5	RRF120	NUMERIC 5.3
55-59	5	RRF160	NUMERIC 5.3
60-64	5	AVERAGE RRF	NUMERIC 5.3
65-69	5	% RSD	NUMERIC 5.1

FORM VII FILE DESCRIPTION
(FORM7)

VOLATILE CONTINUING CALIBRATION CHECK - (FORM 7A)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'7A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 75	10	INSTRUMENT ID	
76- 83	8	CALIBRATION DATE	MM/DD/YY
84- 87	4	CALIBRATION TIME	HHMM
88-101	14	LAB FILE ID	
102-109	8	INIT. CALIB. DATE 1	MM/DD/YY
110-117	8	INIT. CALIB. DATE 2	MM/DD/YY
118-122	5	MATRIX	'SOIL ' OR 'WATER'
123-125	3	LEVEL	'LOW' OR 'MED'
126-129	4	COLUMN	'PACK' OR 'CAP '

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'7A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-34	27	COMPOUND	
35-39	5	AVERAGE RRF	NUMERIC 5.3
40-44	5	RRF50	NUMERIC 5.3
45-49	5	% D	NUMERIC 5.1

SEMIVOLATILE CONTINUING CALIBRATION CHECK - (FORM 7B)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'7B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 75	10	INSTRUMENT ID	
76- 83	8	CALIBRATION DATE	MM/DD/YY
84- 87	4	CALIBRATION TIME	HHMM
88-101	14	LAB FILE ID	
102-109	8	INIT. CALIB. DATE 1	MM/DD/YY
110-117	8	INIT. CALIB. DATE 2	MM/DD/YY

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'7B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-34	27	COMPOUND	
35-39	5	AVERAGE RRF	NUMERIC 5.3
40-44	5	RRF50	NUMERIC 5.3
45-49	5	% D	NUMERIC 5.1

SEMIVOLATILE CONTINUING CALIBRATION CHECK - (FORM 7C)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'7C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 75	10	INSTRUMENT ID	
76- 83	8	CALIBRATION DATE	MM/DD/YY
84- 87	4	CALIBRATION TIME	HHMM
88-101	14	LAB FILE ID	
102-109	8	INIT. CALIB. DATE 1	MM/DD/YY
110-117	8	INIT. CALIB. DATE 2	MM/DD/YY

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'7C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-34	27	COMPOUND	
35-39	5	AVERAGE RRF	NUMERIC 5.3
40-44	5	RRF50	NUMERIC 5.3
45-49	5	% D	NUMERIC 5.1

FORM VIII FILE DESCRIPTION
(FORM8)

VOLATILE INTERNAL STANDARD AREA SUMMARY - (FORM 8A)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'8A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 79	14	LAB FILE ID (STANDARD)	
80- 87	8	DATE ANALYZED	MM/DD/YY
88- 97	10	INSTRUMENT ID	
98-101	4	TIME ANALYZED	HHMM
102-106	5	MATRIX	'SOIL ' OR 'WATER'
107-109	3	LEVEL	'LOW' OR 'MED'
110-113	4	COLUMN	'PACK' OR 'CAP '
114	1	PAGE	NUMERIC 1
115	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'8A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
		12 HOUR STANDARD -	
8- 16	9	IS1 (BCM) AREA	NUMERIC 9
17- 22	6	RT	NUMERIC 6.2
23- 31	9	IS2 (DFB) AREA	NUMERIC 9
32- 37	6	RT	NUMERIC 6.2
38- 46	9	IS3 (CBZ) AREA	NUMERIC 9
47- 52	6	RT	NUMERIC 6.2
		UPPER LIMIT -	
53- 61	9	IS1 (BCM) AREA	NUMERIC 9
62- 70	9	IS2 (DFB) AREA	NUMERIC 9
71- 79	9	IS3 (CBZ) AREA	NUMERIC 9
		LOWER LIMIT -	
80- 88	9	IS1 (BCM) AREA	NUMERIC 9
89- 97	9	IS2 (DFB) AREA	NUMERIC 9
98-106	9	IS3 (CBZ) AREA	NUMERIC 9

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DETAIL RECORD 2 (D2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'8A'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D2'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-21	12	EPA SAMPLE NO.	
22-30	9	IS1 (BCM) AREA	NUMERIC 9
31	1	IS1 (BCM) AREA FLAG	BLANK OR '*'
32-37	6	RT	NUMERIC 6.2
38-46	9	IS2 (DFB) AREA	NUMERIC 9
47	1	IS2 (DFB) AREA FLAG	BLANK OR '*'
48-53	6	RT	NUMERIC 6.2
54-62	9	IS3 (CBZ) AREA	NUMERIC 9
63	1	IS3 (CBZ) AREA FLAG	BLANK OR '*'
64-69	6	RT	NUMERIC 6.2

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY - (FORM 8B)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'8B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 79	14	LAB FILE ID (STANDARD)	
80- 87	8	DATE ANALYZED	MM/DD/YY
88- 97	10	INSTRUMENT ID	
98-101	4	TIME ANALYZED	HHMM
102	1	PAGE	NUMERIC 1
103	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'8B'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
		12 HOUR STANDARD -	
8- 16	9	IS1 (DCB) AREA	NUMERIC 9
17- 22	6	RT	NUMERIC 6.2
23- 31	9	IS2 (NPT) AREA	NUMERIC 9
32- 37	6	RT	NUMERIC 6.2
38- 46	9	IS3 (ANT) AREA	NUMERIC 9
47- 52	6	RT	NUMERIC 6.2
		UPPER LIMIT -	
53- 61	9	IS1 (DCB) AREA	NUMERIC 9
62- 70	9	IS2 (NPT) AREA	NUMERIC 9
71- 79	9	IS3 (ANT) AREA	NUMERIC 9
		LOWER LIMIT -	
80- 88	9	IS1 (DCB) AREA	NUMERIC 9
89- 97	9	IS2 (NPT) AREA	NUMERIC 9
98-106	9	IS3 (ANT) AREA	NUMERIC 9

DETAIL RECORD 2 (D2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	8B
4- 5	2	FORM SUFFIX	AA-ZZ
6- 7	2	RECORD TYPE	D2
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-21	12	EPA SAMPLE NO.	
22-30	9	IS1 (DCB) AREA	NUMERIC 9
31	1	IS1 (DCB) AREA FLAG	BLANK OR '*'
32-37	6	RT	NUMERIC 6.2
38-46	9	IS2 (NPT) AREA	NUMERIC 9
47	1	IS2 (NPT) AREA FLAG	BLANK OR '*'
48-53	6	RT	NUMERIC 6.2
54-62	9	IS3 (ANT) AREA	NUMERIC 9
63	1	IS3 (ANT) AREA FLAG	BLANK OR '*'
64-69	6	RT	NUMERIC 6.2

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY - (FORM 8C)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'8C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 79	14	LAB FILE ID (STANDARD)	
80- 87	8	DATE ANALYZED	MM/DD/YY
88- 97	10	INSTRUMENT ID	
98-101	4	TIME ANALYZED	HHMM
102	1	PAGE	NUMERIC 1
103	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'8C'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
		12 HOUR STANDARD -	
8- 16	9	IS4 (PHN) AREA	NUMERIC 9
17- 22	6	RT	NUMERIC 6.2
23- 31	9	IS5 (CRY) AREA	NUMERIC 9
32- 37	6	RT	NUMERIC 6.2
38- 46	9	IS6 (PRY) AREA	NUMERIC 9
47- 52	6	RT	NUMERIC 6.2
		UPPER LIMIT -	
53- 61	9	IS4 (PHN) AREA	NUMERIC 9
62- 70	9	IS5 (CRY) AREA	NUMERIC 9
71- 79	9	IS6 (PRY) AREA	NUMERIC 9
		LOWER LIMIT -	
80- 88	9	IS4 (PHN) AREA	NUMERIC 9
89- 97	9	IS5 (CRY) AREA	NUMERIC 9
98-106	9	IS6 (PRY) AREA	NUMERIC 9

DETAIL RECORD 2 (D2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	8C
4- 5	2	FORM SUFFIX	AA-ZZ
6- 7	2	RECORD TYPE	D2
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-21	12	EPA SAMPLE NO.	
22-30	9	IS4 (PHN) AREA	NUMERIC 9
31	1	IS4 (PHN) AREA FLAG	BLANK OR '*'
32-37	6	RT	NUMERIC 6.2
38-46	9	IS5 (CRY) AREA	NUMERIC 9
47	1	IS5 (CRY) AREA FLAG	BLANK OR '*'
48-53	6	RT	NUMERIC 6.2
54-62	9	IS6 (PRY) AREA	NUMERIC 9
63	1	IS6 (PRY) AREA FLAG	BLANK OR '*'
64-69	6	RT	NUMERIC 6.2

PESTICIDE EVALUATION STANDARDS SUMMARY - (FORM 8D)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'8D'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 75	10	INSTRUMENT ID	
76- 85	10	GC COLUMN ID	
		DATES OF ANALYSES	
86- 93	8	FROM:	MM/DD/YY
94-101	8	TO:	MM/DD/YY

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'8D'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-20	13	PESTICIDE	
21-31	11	CALIB. FACTOR EVAL MIX A	NUMERIC 11
32-42	11	CALIB. FACTOR EVAL MIX B	NUMERIC 11
43-53	11	CALIB. FACTOR EVAL MIX C	NUMERIC 11
54-58	5	% RSD	NUMERIC 5.1

DETAIL RECORD 2 (D2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'8D'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D2'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-17	8	DATE ANALYZED	MM/DD/YY
18-21	4	TIME ANALYZED	HHMM
22-26	5	ENDRIN	NUMERIC 5.1
27-31	5	4,4'-DDT	NUMERIC 5.1
32-36	5	COMBINED	NUMERIC 5.1

PESTICIDE EVALUATION STANDARDS SUMMARY - (FORM 8E)
EVALUATION OF RETENTION TIME SHIFT FOR DIBUTYLCHLORENDATE

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'8E'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 75	10	INSTRUMENT ID	
76- 85	10	GC COLUMN ID	
		DATES OF ANALYSES	
86- 93	8	FROM:	MM/DD/YY
94-101	8	TO:	MM/DD/YY
102	1	PAGE	NUMERIC 1
103	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'8E'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-21	12	EPA SAMPLE NO.	
22-33	12	LAB SAMPLE ID	
34-41	8	DATE ANALYZED	MM/DD/YY
42-45	4	TIME ANALYZED	HHMM
46-50	5	% D	NUMERIC 5.1
51	1	FLAG	BLANK OR '*'

FORM IX FILE DESCRIPTION
(FORM9)

133

PESTICIDE/PCB STANDARDS SUMMARY - (FORM 9)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	' 9'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 32	25	LAB NAME	
33- 43	11	CONTRACT	
44- 49	6	LAB CODE	
50- 54	5	CASE NO.	
55- 60	6	SAS NO.	
61- 65	5	SDG NO.	
66- 75	10	INSTRUMENT ID	
76- 85	10	GC COLUMN ID	
86- 93	8	DATE OF ANALYSIS FROM:	MM/DD/YY
94-101	8	DATE OF ANALYSIS	MM/DD/YY
102-109	8	DATE OF ANALYSIS TO:	MM/DD/YY
110-113	4	TIME OF ANALYSIS	HHMM
114-117	4	TIME OF ANALYSIS FROM:	HHMM
118-121	4	TIME OF ANALYSIS TO:	HHMM
122-133	12	EPA SAMPLE NO. (STANDARD)	
134	1	PAGE	NUMERIC 1
135	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	' 9'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8-20	13	COMPOUND	
21-26	6	RT	NUMERIC 6.2
27-32	6	RT WINDOW FROM:	NUMERIC 6.2
33-38	6	RT WINDOW TO:	NUMERIC 6.2
39-49	11	CALIBRATION FACTOR	NUMERIC 11
50-55	6	RT	NUMERIC 6.2
56-66	11	CALIBRATION FACTOR	NUMERIC 11
67	1	QUANT	'Y' OR 'N'
68-72	5	% D	NUMERIC 5.1

FORM X FILE DESCRIPTION
(FORM10)

PESTICIDE/PCB IDENTIFICATION - (FORM 10)

HEADER RECORD 1 (H1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'10'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'H1'
8- 19	12	EPA SAMPLE NO.	
20- 44	25	LAB NAME	
45- 55	11	CONTRACT	
56- 61	6	LAB CODE	
62- 66	5	CASE NO.	
67- 72	6	SAS NO.	
73- 77	5	SDG NO.	
78- 87	10	GC COLUMN ID (1)	
88- 97	10	GC COLUMN ID (2)	
98-107	10	INSTRUMENT ID (1)	
108-117	10	INSTRUMENT ID (2)	
118-129	12	LAB SAMPLE ID	
130-143	14	LAB FILE ID (IF GC/MS)	
144	1	PAGE	NUMERIC 1
145	1	OF	NUMERIC 1

DETAIL RECORD 1 (D1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'10'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D1'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-23	14	PESTICIDE/PCB	
24-29	6	RETENTION TIME COLUMN 1	NUMERIC 6.2
30-35	6	RT WINDOW OF STANDARD FROM:	NUMERIC 6.2
36-41	6	TO:	NUMERIC 6.2
42	1	QUANT?	'Y' OR 'N'
43	1	GC/MS?	'Y' OR 'N'

DETAIL RECORD 2 (D2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'10'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'D2'
8- 9	2	SEQUENCE NUMBER	NUMERIC 2
10-23	14	PESTICIDE/PCB	
24-29	6	RETENTION TIME COLUMN 2	NUMERIC 6.2
30-35	6	RT WINDOW OF STANDARD FROM:	NUMERIC 6.2
36-41	6	TO:	NUMERIC 6.2
42	1	QUANT?	'Y' OR 'N'
43	1	GC/MS?	'Y' OR 'N'

COMMENT RECORD 1 (C1)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'10'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C1'
8-72	65	COMMENT LINE 1	

COMMENT RECORD 2 (C2)

COLUMN (S)	LENGTH	CONTENTS	FORMAT/CONTENTS
1- 3	3	FORM NUMBER	'10'
4- 5	2	FORM SUFFIX	'AA'-'ZZ'
6- 7	2	RECORD TYPE	'C2'
8-72	65	COMMENT LINE 2	

SECTION III

FORMAT B SPECIFICATION

1. Format Characteristics

1.1 Format B is based upon analytical results and ancillary information required by the contract. All data generated by a single analysis are grouped together, and the groups are aggregated to produce files that report data from an SDG.

1.2 Format B fields are separated by at least one blank byte. Field characteristics and required justification of values are given in the detailed listing of record types below.

2. Record Types

2.1 Format B consists of fixed-length 80-byte ASCII records. The last two bytes of each record must contain "carriage return" and "line feed", respectively. Unused bytes in partially filled fields must be blank-filled.

2.2 Format B consists of eleven record types than can be summarized in four groups:

Type	Name	Contents
10	Run Header	Contains information pertinent to the whole production run. See production run definition below.
20	Sample Header	Contains sample-identifying information, or corresponding information for calibrations, QC samples, instrument performance checks, etc.
30	Results Record	Contains any final result on a sample, calibration, or QC sample, and identifying information.
90	Comments Record	Contains free-form comments.

A type 20 record, representing a sample, contains the raw EPA Sample No. (the Sample No. as given on the Traffic Report without any of the identifying suffixes) which acts as an identifying label for the sample. A QC code indicates whether the data are from an environmental sample, calibration, or QC sample; or other calculated run-wide data such as mean response factors. A type 30 record, representing an individual compound, contains a CAS code to identify the analyte, surrogate, or internal standard. All 30 series records following that record pertain to the same compound. See page H-82 for an example of the sequence of record types.

3. Production Runs

A production run represents a "group" or "batch" of samples that are processed in a continuous sequence under relatively stable conditions. Specifically: Calibration - All samples in a run use the same initial calibration data. Method number - Constant. Instrument conditions - Constant throughout a run. Results obtained on different instruments cannot be combined in one run.

Analyses from each fraction consist of a separate production run, and are reported in separate files. There will be a separate production run for each 72-hour sequence for pesticides for each GC column utilized. Thus, a full three fraction analysis will consist of a minimum of four production runs, and could consist of more.

4. Record Sequence (see page H-82)

4.1 A Run Header (type 10) record must be present once and once only (per file) as the first record in a file.

4.2 Each environmental sample, calibration, or quality control sample is represented by a group composed of type 20 and 21 records, which hold sample level identifying information, followed by one type 30 record for each method analyte or standard. The type 20 record holds a count for the number of method analytes being determined, and includes all target compounds plus any tentatively identified compounds. Type 20 records must occur in the order of sample analysis. The type 20 records for quality control items have the additional rule that the LF1 record must occur before the LF2 record, but the records need not be adjacent. In addition, a type 20 record is used as a header for any additional run-wide data that must be reported for each method analyte (such as mean response factors). Unique identifiers given on page H-77 are used in place of "QC codes" to indicate the type of data that follows. Type 30 records for each analyte must occur in the order specified on hardcopy deliverable Form 6.

4.3 Type 90 comment records may be defined to occupy any position except before the type 10 (header) record.

5. File/Record Integrity

All record types shall contain the following check fields to ensure file and record integrity:

Record Position	Field Length	Field Contents	Remarks
1-2	2	Record type or identifier	"10" or as appropriate
72-74	3	Record sequence number within file	000-999, repeated as necessary
75-78	4	Record checksum	Four hexadecimal digits(*)
79-80	2	Will contain CR and LF	

(*) The checksum is the sum of the thirty-five Integers that make up the data in columns 1 to 70, when data are represented in the format 35A2 on processors which store data bytes in left to right order. The sum is taken modulo 65536 (2^{16}) and represented as four hexadecimal digits. For processors which use an A70 character representation of data, the checksum is the sum of all the even character position values plus 256 times the sum of all the odd character position values.

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6. Dates and Times

Date or time-of-day information consists of successive groups of one or two decimal digits, each separated by blanks. Dates are given in the order YY MM DD, and times as HH MM. All hours must be given as 0 to 23 using a 24 hour clock and must be local time.

7. Multiple Volume Data

Format B data from an entire SDG may not fit onto a single diskette. If a single production run is being split onto multiple diskettes, then all files must start with a type 10 record, and the multiple type 10 records for each file of the same production run must be identical. If it is necessary to split the data from a single sample onto multiple diskettes, then the type 20 (and following) type records for that sample must be repeated. In this situation, columns 7-30, which collectively identify the sample, must be identical on each diskette.

8. Record Listing

Following is a listing of every record type required to report data from a single SDG.

8.1 Format of the mandatory Production Run Header Record (Type 10)

Record Position	Field Length	Field Contents	Remarks
1-2	2	Record type	"10"
3-18	16	blank	
19-23	5	Measurement Type	"GC/MS" for Volatiles and Semivolatiles or "GC/EC" for Pesticides.
24-25	2	blank	
26-30	5	Method Number	"6241" for Volatiles; "625C" for Semivolatiles; "6081" for Pesticides
31-35	5	blank	
36-41	6	Lab ID	From EPA standard list or Project Officer
42-51	10	blank	
52-61	10	Contract Number	Agency standard number
62	1	blank	
63-68	6	Instrument ID	e.g. 59951G; provided by contract lab; left justified; must be unique and permanent within lab. First four characters are designator; fifth is sequence number; sixth is lab assigned.

8.2 Format of the Chromatography Record (Type 11)

Use: To describe chromatograph conditions.

Position: Follows type 10.

Record Position	Field Length	Field Contents	Remarks
1-2	2	Record type	"11"
3	1	blank	
4-11	8	Commercial Column name	Left justified. Column ID, e.g. SP2330
12-17	6	blank	
18-21	4	Column inside diameter (mm)	Right justified

8.3 Format of the mandatory Sample Header Data Record (Type 20)

Record Position	Field Length	Field Contents	Remarks
1-2	2	Record type	"20"
3-6	4	blank	
7-11	5	EPA Sample I.D.	Left justified. Raw Sample No. only; no suffixes.
12-15	4	blank	
16	1	Sample Medium/Matrix Code	"0" if not applicable "1" for water "H" for soil
17	1	blank	
18-20	3	QC code	Codes type of data to be reported (see page H-77)
21	1	blank	
22-24	3	Sample Qualifier	Code to qualify the results of the entire sample analysis (see page H-79)
25	1	blank	
26-30	5	Case Number	
31-39	9	blank	
40-47	8	Date of Instrumental analysis	YY MM DD
48	1	blank	
49-53	5	Hour, Min. of analysis	HH MM
54-56	3	blank	
57	1	Sample Units Code	"L" - liters for water "K" - kilograms for soil
58	1	blank	
59-66	8	Sample Size	right justified; see Note
67	1	blank	
68-70	3	Analyte count	Numeric; 1-3 decimal digits; right justified. Counts all analytes including TIC's.

NOTE: Sample Size is the volume in liters for liquids and the wet weight in kilograms for solids. The Sample Units Code indicates which units are in use for the current sample. Leave blank if not applicable.

8.4 Format of the Sample Header Data Record (Type 21)

Use: Continuation of type 20.

Position: Follows the type 20 to which it applies.

Record Position	Field Length	Field Contents	Remarks
1-2	2	Record type	"21"
3-5	3	blank	
6	1	Concentration level	"L" - low "M" - medium (See note).
7	1	blank	
8	1	Clean-up Utilized	"G" or blank
9-11	3	blank	
12	1	Extraction code	"S" - Separatory Funnel "C" - Continuous Liq-Liq "N" - Sonication
13-17	5	blank	
18-23	6	SAS Number	Leave blank if none.
24	1	blank	
25-35	11	Laboratory Data Descriptor	Lab File ID for Volatiles or Semivolatiles; Lab Sample ID for Pesticides.
36	1	blank	
37-44	8	Date of Beginning of Sample Prep - Extraction prior to analysis	YY MM DD
45-47	3	blank	
48-55	8	Date Sample Received at Lab	YY MM DD

Note: The Concentration Level is an estimate of overall level for all analytes.

8.5 Format of the Sample Conditions Record (Type 22)

Use: Continuation of type 20. Used to describe additional sample conditions.

Position: Follows the type 20 and 21 to which it applies.

Record Position	Field Length	Field Contents	Remarks
1-2	2	Record type	"22"
3	1	blank	
4-11	8	Date of associated calibration	YY MM DD; see Note. (Date of Source of the response factors or calibration factors used)
12	1	blank	
13-17	5	Time of associated calibration	HH MM
18	1	blank	
19-29	11	Calibration File ID	Lab File ID or Lab Sample ID (pesticides) of continuing calibration, or "AVERAGE", position 21-27 and padded with blanks (if mean used)
30	1	blank	
31-34	4	Sample pH	XX or XX.X, right justified
35	1	blank	
36-37	2	Percent moisture	right justified; use zero if not applicable
38	1	blank	
39-40	2	Decanted percent moisture	right justified; use zero if not applicable
41	1	blank	
42-46	5	Extract Volume in ml	e.g. 1.0 or 0.050
47	1	blank	
48-55	8	Concentration/dilution factor	Right justified; e.g. 2000 or .001

Note: For average, use the date and time average was calculated.

8.6 Format of the Associated Injection and Counter Record (Type 23)

Use: Continuation of type 20. Used to identify associated blanks and tunes, and to count the number of surrogates and spikes outside QC limits and the number of TIC compounds.

Position: Follows the type 20, 21, and 22 to which it applies.

Record Position	Field Length	Field Contents	Remarks
1-2	2	Record type	"23"
3	1	blank	
4	1	"P" or blank	Labels data as "tune" data. (if applicable)
5	1	blank	
6-13	8	Date of associated DFTPP/BFB injection	YY MM DD. Acquisition date of tune to be linked with this sample (if applicable).
14	1	blank	
15-19	5	Time of DFTPP/BFB injection	HH MM (if applicable)
20	1	blank	
21-31	11	DFTPP/BFB Lab File ID	From instrument data system (if applicable)
32	1	blank	
33	1	"B" or blank	Labels data as "blank" data. (if applicable)
34	1	blank	
35-42	8	Date of associated blank injection	YY MM DD. Acquisition date of method blank to be linked with sample (if applicable).
43	1	blank	
44-48	5	Time of blank injection	HH MM (if applicable)
49	1	blank	
50-60	11	Blank Lab File ID or blank Lab Sample ID (pesticides)	From instrument data system
61	1		
62	1	"P"	Identifies following counter "P" - # of % Recoveries Outside of QC limits
63	1	blank	
64-65	2	Number of Percent Recoveries Failing QC limits	Use the Counter from Form 2 or 3 for each sample.
66	1	blank	
67	1	"T" or "R"	"T" - # of TIC compounds. "R" - # of % RSD's outside limits
68	1	blank	
69-70	2	Number of TIC Compounds or # % RSD's Outside Limits	From Form 1-E or 1-F or from Form 3

8.7 Format of the Results Data Record (Type 30)

Record Position	Field Length	Field Contents	Remarks
1-2	2	Record type	"30"
3	1	blank	
4	1	"C" or "I"	Use "C" - CAS Number unless identifying combined DDT and Endrin, in which case use "I"
5	1	blank	
6-14	9	CAS Number	Right justified. Use "COMBINED" for combined DDT and Endrin.
15	1	blank	
16-24	9	CAS Number Internal Standard Utililzed	Right justified
25	1	blank	
26-30	5	Units of measure	(Left justified) "UG/KG" for Soil; "UG/L " for Water; "PERCT" for percent
31	1	blank	
32-34	3	Non-numeric result	See page H-79 also called a result qualifier
35	1	blank	
36-41	6	Numeric analytical result	Right justified; fixed point or scientific notation
42	1	blank or 'E'	
43-45	3	Exponent	Blank field will be interpreted as "+00"
46	1	blank	
47	1	Calculated Value Descriptor	Describes following value (See page H-81)
48	1	blank	
49-54	6	Related Calculated Value	Value of item described Format same as 36-46.
55	1	blank or 'E'	
56-58	3	Exponent	
59	1	blank	
60	1	Limit or QC Value Descriptor	Describes following value (See page H-81)
61	1	blank	
62-66	5	Related Limit Value	Value of item described above.
67	1	blank or 'E'	
68-70	3	Exponent	

8.8 Format of the Instrumental Data Readout Record (Type 31)

Use: To describe peak areas for internal standards and DFTPP/BFB percent abundances.

Position: Follows type 30 for internal standards and DFTPP/BFB data.

Record Position	Field Length	Field Contents	Remarks
1-2	2	Record type	"31"
3	1	blank	
4	1	"M"	Indicates mass for DFTPP/BFB data.
5	1	blank	
6	1	Type of Value	A - Area (Internal Standards). P - % Abundance of base (DFTPP/BFB); S - % Abundance of secondary ion.
7-9	3	blank	
10-17	8	First Mass	Gives the DFTPP/BFB masses (right justified) e.g. 442.
18	1	blank	
19-28	10	First Area or % Abundance	up to 10 decimal digits, right justified
29	1	blank	
30-37	8	Second Mass (DFTPP/BFB)	Leave columns 30-68 blank for Internal Standards.
38	1	blank	
39-48	10	Second Percent Abundance	Up to three masses and percent abundances may be given on each record for DFTPP/BFB data. Those ions that require two % values must be listed twice.
49	1	blank	
50-57	8	Third Mass	
58	1	blank	
59-68	10	Third Percent Abundance	

8.9 Format of the Auxillary Data Record (Type 32)

Use: Used to report scan number and retention time (in minutes) for Internal Standards and for TIC compounds. Used to report retention time data for Pesticides.

Position: Follows type 30. (Record will only be required as specified above.)

Record Position	Field Length	Field Contents	Remarks
1-2	2	Record type	"32"
3-8	6	blank	
9-10	2	"RT"	Indicates retention time.
11	1	blank	
12-21	10	Retention Time in Minutes	Fixed or Scientific notation as in Record Type 30.
22	1	blank	
23-24	2	"SC" or "RF"	Indicates scan number for GC/MS or RT "From" Value for Pesticides.
25	1	blank	
26-35	10	Scan Number or Retention Time "From" Value	In minutes.
36	1	blank	
37-38	2	"RO" or blank	Indicates RT "To" Value for Pesticides.
39	1	blank	
40-49	10	Retention Time "To" Value	In minutes.

8.10 Format of the Name Record (Type 33)

Use: To carry an analyte name for a TIC compound.

Position: Follows type 30 for TIC compounds.

Record Position	Field Length	Field Contents	Remarks
1-2	2	Record type	"33"
3	1	blank	
4-70	67	Name of compound	

8.11 Format of the Comment Record (Type 90)

First Use: To provide for multiple Result Qualifier Flags from hardcopy deliverable Form 1.

Position: Immediately follows the type 30 record to which it applies.

Record Position	Field Length	Field Contents	Remarks
1-2	2	Record Type	"90"
3	1	blank	
4-8	5	"FLAGS"	Identifies this as a Form 1 Flags record.
9	1	blank	
10-12	3	Second Result Qualifier Flag	See H-79 for definitions.
13	1	blank	
14-16	3	Third Result Qualifier Flag	
17	1	blank	
18-20	3	Fourth Result Qualifier Flag	
21	1	blank	
22-24	3	Fifth Result Qualifier Flag	

Second Use: To provide for Operator-Entered Comments.

Position: May occur anywhere.

Record Position	Field Length	Field Contents	Remarks
1-2	2	Record Type	"90"
3-4	2	blank	Blank in column 4 identifies this as an operator comment
5-70	66	Any Comment	

9. Definitions of Various Codes Used in Format B Records

9.1 Quality Control and Related Codes (QCC) in Type 20 Records

Note: These QCC appear in the QC code fields of type 20 records. They are used to indicate the type of data that are being reported.

QCC	Name	Definition
LRB	LABORATORY (REAGENT) BLANK	The "Method Blank" (See Exhibit G).
LSD	LABORATORY SPIKE DUPLICATE BACKGROUND (ORIGINAL) VALUES	An environmental sample which is analyzed according to the analytical method, and subsequently used for the matrix spike and the matrix spike duplicate (See Exhibit G).
LF1	LABORATORY SPIKED SAMPLE - FINAL - FIRST MEMBER	The "Matrix Spike" (See Exhibit G)
LF2	LABORATORY SPIKED SAMPLE - FINAL - SECOND MEMBER	The "Matrix Spike Duplicate" (See Exhibit G)
LPC	LABORATORY PERFORMANCE CHECK SOLUTION (tune data)	A solution of DFTPP or BFB used to establish the mass spectral tuning performance (See Exhibit G).
CLM	INITIAL CALIBRATION - MULTI POINT	The Initial Calibration for GC/MS (See Exhibit G), or the Initial Evaluation Standard Mixes (A, B, C) for Pesticides (See Exhibit D PEST). Response factors (GC/MS) or Calibration Factors (Pesticides) rather than concentrations will be reported on the following type 30 records.
CLS	INITIAL CALIBRATION SINGLE POINT	The Initial Individual Standard/Toxaphene/Aroclor Mixes used to determine all calibration factors. (See Exhibit D PEST).
CLC	CONTINUING CHECK CALIBRATION	The Continuing Calibration for GC/MS (See Exhibit G), or the subsequent Individual/Evaluation Standard Mixes for Pesticides (See Exhibit D PEST).

QCC	Name	Definition
CLD	DUAL PURPOSE CALIBRATION	A calibration solution as above used both as an initial calibration (CLM) and a continuing check (CLC). [50 level initial calibration if needed for Form 8]
blank		Unknown sample, not associated with any quality control item.

The following QCC values are used on type 20 records which act as a header, and indicate that additional (usually calculated) analyte specific data will be present on type 30 (and following type) records. Usually these data will apply to an entire production run, in which case they will appear immediately following the type 10 record. If the data apply to only a portion of the samples in the run, they should be placed immediately preceding the samples to which they apply. Much of the rest of the information in the type 20 record may be blank, indicating that these data do not apply to these results.

MNC	MEAN VALUES FROM CALIBRATIONS	The data following represent mean values and percent RSD's from the initial calibribration (GC/MS) or the evaluation mixes (Pesticides).
SDR	MATRIX SPIKE DUPLICATE CALCULATED RESULTS	The data following represent calculated QC results for the triplicate of samples LSD, LF1, and LF2. Data will consist of the LF1 percent recovery, the LF2 percent recovery, and the percent RSD for each method analyte that was spiked according to the analytical method as is present on hardcopy deliverable Form 3.

9.2 Codes For Sample Medium (Matrix, Source)

Medium	Code
All Media, Specific Medium not Applicable. Use for Calibrations, Tunes, etc.	0
Water	1
Soil	H

9.3 List of Sample and Result Qualifiers

Definition: A sample qualifier or a result qualifier (also called a non-numeric result) consists of 3 characters which act as an indicator of the fact and the reason that the subject analysis (a) did not produce a numeric result, or (b) produced a numeric result but it is qualified in some respect relating to the type or validity of the result.

9.3.1 Sample Qualifiers

Qualifier	Full Name	Definition
RIN	RE-ANALYZED	The indicated analysis results were generated from a re-injection of the same sample extract or aliquot.
REX	RE-PREPARED	The indicated analysis results were generated from a re-extraction of the same sample.
REJ	REJECTED	The analysis results have been rejected for an unspecified reason by the laboratory. For initial calibration data, these data were not utilized in the calculation of the mean.
SPL	SPLIT RESULTS	The indicated environmental sample or calibration has been split into more than one analysis, and the analysis results are reported as more than one group of results (multiple type 20 records).
SRN	SPLIT RESULTS - RE-ANALYZED	A combination of "SPL" and "RIN"
SRX	SPLIT RESULTS - RE-PREPARED	A combination of "SPL" and "REX"

9.3.2 Result Qualifiers

BDL	BELOW DETECTABLE LIMITS	Indicates compound was analyzed for but not detected; (Form 1 "U" Flag).
NAR	NO ANALYSIS RESULT	There is no analysis result required for this subject parameter.
AVG	AVERAGE VALUE	Average value - used to report a range of values.

Qualifier	Full Name	Definition
CBC	CANNOT BE CALCULATED	The analysis result cannot be calculated because an operand value is qualified. Identifies analytes whose Internal Standard is not found.
LTL	LESS THAN LOWER CALIBRATION LIMIT	Actual value is known to be less than the lower calibration range due to dilution. (Form 1 "D" Flag)
GTL	GREATER THAN UPPER CALIBRATION LIMIT	Actual value is known to be greater than the upper calibration range. (Form 1 "E" Flag)
LLS	LESS THAN LOWER STANDARD	The analysis result is less than the sample quantitation limit. (Form 1 "J" Flag)
TIE	TENTATIVELY IDENTIFIED -ESTIMATED VALUE	The indicated analyte is a tentatively identified analyte; its concentration has been estimated. (Form 1-E or 1-F "J" Flag)
REJ	REJECTED	Same definition as above.
STD	INTERNAL STANDARD	The indicated compound is an internal standard. There is no analysis result to report.
STB	INTERNAL STANDARD BELOW DETECTION LIMITS	A combination of "STD" and "BDL".
FBK	FOUND IN BLANK	The indicated compound was found in the associated method blank (LRB) as well as the sample. (Form 1 "B" flag)
MSP	PERCENT RECOVERY	The following value represents the percent recovery for the "MS" sample. The remaining two values give the "MSD" percent recovery and the Percent RPD.
CON	CONFIRMED	Pesticide identification has been confirmed by GC/MS (Form 1 "C" Flag).
TFB	TENTATIVELY IDENTIFIED AND FOUND IN BLANK	A Combination of "TIE" and "FBK" (Form 1-E or 1-F "B" flag).
ALC	ALDOL CONDENSATION	Labels a suspected Aldol Condensation product for TIC's (Form 1-E or 1-F "A" Flag).

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9.4 Calculated Value Descriptors

These codes appear in column 47 of Type 30 records to identify the value in columns 49-58.

Qualifier	Full Name	Definition
A	AMOUNT ADDED	Identifies the amount of matrix spike analyte added (for QC codes "LF1" and "LF2").
P	PERCENT RECOVERY	Identifies the Percent Recovery of the "MSD" Sample in the Matrix Spike Results Record (for QC Code "SDR")
D	PERCENT DIFFERENCE	Identifies the Percent Difference of the Dibutylchlorendate retention time for pesticides (as on Form 8-E).
B	PERCENT BREAKDOWN	Identifies the Percent Breakdown of DDT and/or Endrin (as on Form 8-D).

9.5 Limit or QC Value Descriptors

These codes appear in column 60 of Type 30 records to identify the value in columns 62-70.

Qualifier	Full Name	Definition
U	UNDETECTED	Value is the corrected sample quantitation limit (Form 1 "U" Value).
R	PERCENT RSD	Value is the Percent RSD for the Matrix Spike and Matrix Spike Duplicate (QC Code "SDR") or for the Mean Response Factors (QC Code "MNC").
S	SURROGATE RECOVERY	Value is the Percent Recovery for the indicated Surrogate.
D	PERCENT DIFFERENCE	Value is the Percent Difference of the Result of the Continuing Check from that of the Initial Calibration (as on Form 7).

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10. Example of the Sequence of Record Types in a File

```
10          Contains Run Header information
    11          Contains additional run-wide information if required.

    20          Occurs once for each sample, calibration, mean response factor,
                matrix spike duplicate result, etc. - Acts as a header.
    21
    22          Contains additional information for samples.
    23
        30          Occurs once for each final analytical result.  Reports
                    the value being determined as defined by the type 20.
            31          Reports any instrumental data necessary.
            32          Reports any auxillary data necessary.
            33          Reports component names if necessary.
        30          Values for the next analyte or parameter being measured.
            31          Additional data may vary for each parameter, and records
            32          may occur in any order.  Multiple occurrences of the
            32          same record type, however, must be consecutive.
            33
        30          Continues for as many as are necessary.
            31
            32
            33
        30
            31
            32
            33
    20          Next Sample Header record - The following applies to the next
    21          sample or other group of data.
    22
        30
            31
            32
            33
        30
            31
            32
            33
                    etc.
    20
    21
        30
            31
            32
            33
                    etc.
```

11. Format of Records for Specific Uses

11.1 Format of the Sample Header Data Record (Type 20) for Mean Response Factors

Record Position	Field Length	Field Contents	Remarks
1-2	2	"20"	Record Type
3-15	13	blank	
16	1	"0"	All matrices
17	1	blank	
18-20	3	"MNC"	Identifies Mean Response Factors
21-66	46	blank	
67-69	3	Analyte count	Numeric; 1-3 decimal digits; right justified.

11.2 Format of the Results Data Record (Type 30) for Mean Response Factors

Record Position	Field Length	Field Contents	Remarks
1-2	2	"30"	Record Type
3	1	blank	
4	1	"C"	
5	1	blank	
6-14	9	CAS Number	Right justified.
15	1	blank	
16-24	9	CAS Number Internal Standard Utililzed	Right justified
25-31	7	blank	
32-34	3	"AVG"	Indicates Average Value
35	1	blank	
36-41	6	Mean Response Factor	Right justified; fixed or scientific notation
42	1	blank or 'E'	
43-45	3	Exponent	Blank field will be interpreted as "+00"
46-59	14	blank	
60	1	"R"	Indicates Percent RSD
61	1	blank	
62-66	5	Percent RSD	
67	1	blank or 'E'	
68-70	3	Exponent	

11.3 Format of the Sample Header Data Record (Type 20) for Matrix Spike Duplicates

Record Position	Field Length	Field Contents	Remarks
1-2	2	"20"	Record Type
3-6	4	blank	
7-11	5	EPA Sample I.D.	Left justified. Raw Sample I.D. only; no suffixes.
12-15	4	blank	
16	1	Sample Medium/Matrix Code	"1" for water "H" for soil
17	1	blank	
18-20	3	"SDR"	Identifies Matrix Spike Duplicate Results
21-25	5	blank	
26-30	5	Case Number	
31-66	36	blank	
67-69	3	Analyte count	Numeric; 1-3 decimal digits; right justified. Counts number of spiked analytes.

11.4 Format of the Counter Record (Type 23) for Matrix Spike Duplicates

Position: Follows the type 20 to which it applies.

Record Position	Field Length	Field Contents	Remarks
1-2	2	"23"	Record Type
3-61	59	blank	
62	1	"P"	Identifies Number of % Recoveries outside of limits.
63	1	blank	
64-65	2	Number of Percent Recoveries Failing QC limits	Use the counter from Form 3 for each sample.
66	1	blank	
67	1	"R"	# of % RSD's outside limits.
68	1	blank	
69-70	2	Number of % RSD's Outside Limits	From Form 3.

11.5 Format of the Results Data Record (Type 30) for Matrix Spike Duplicates

Record Position	Field Length	Field Contents	Remarks
1-2	2	"30"	Record type
3	1	blank	
4	1	"C"	
5	1	blank	
6-14	9	CAS Number	Right justified.
15	1	blank	
16-24	9	CAS Number Internal Standard Utililzed	Right justified
25	1	blank	
26-30	5	"PERCT"	Units are "Percent"
31	1	blank	
32-34	3	"MSP"	Indicates Matrix Spike Percent recovery
35	1	blank	
36-41	6	"MS" Percent Recovery	Right justified; fixed or scientific notation
42	1	blank or 'E'	
43-45	3	Exponent	Blank field is interpreted as "+00"
46	1	blank	
47	1	"P"	Indicates Matrix Spike Duplicate Percent Recovery
48	1	blank	
49-54	6	"MSD" Percent Recovery	Format same as 36-46.
55	1	blank or 'E'	
56-58	3	Exponent	
59	1	blank	
60	1	"R"	Indicates Percent RSD
61	1	blank	
62-66	5	Percent RSD	
67	1	blank or 'E'	
68-70	3	Exponent	

11.6 Format of the Sample Header Data Record (Type 20) for Pesticide Evaluation Mix B

Record Position	Field Length	Field Contents	Remarks
1-2	2	"20"	Record Type
3-6	4	blank	
7-11	5	"EVALB"	Sample I.D.
12-15	4	blank	
16	1	"0"	All matrices
17	1	blank	
18-20	3	"CLC"	Indicates Continuing Check (Pesticide Standard)
21-25	5	blank	
26-30	5	Case Number	
31-38	8	blank	
39-46	8	Date of Instrumental analysis	YY MM DD
47	1	blank	
48-52	5	Hour, Min. of analysis	HH MM
53-66	14	blank	
67-69	3	Analyte count	Numeric; 1-3 decimal digits; right justified. Will be "2" or "4".

11.7 The following type 30 record occurs once if reporting "Combined" breakdown only, or three times if reporting separate breakdowns for Endrin and DDT along with the Combined value.

Format of the Results Data Record (Type 30) for Pesticide Evaluation Mix B (Percent Breakdown Data From Form 8D)

Record Position	Field Length	Field Contents	Remarks
1-2	2	"30"	Record Type
3	1	blank	
4	1	"C" or "I"	Use "C" - CAS Number unless identifying combined DDT and Endrin, in which case use "I"
5	1	blank	
6-14	9	CAS Number	Right justified. Use "COMBINED" for combined DDT and Endrin.
15-25	11	blank	
26-30	5	"PERCT"	Units
31-46	16	blank	
47	1	"B"	Identifies Percent Breakdown
48	1	blank	
49-54	6	Percent Breakdown of Indicated Compound(s)	Right justified; fixed scientific notation
55	1	blank or 'E'	Blank field will be interpreted as "+00"
56-58	3	Exponent	

11.8 Format of the Results Data Record (Type 30) for Pesticide Evaluation Mix B (Evaluation Standards Summary Data From Form 8E)

Record Position	Field Length	Field Contents	Remarks
1-2	2	"30"	Record Type
3	1	blank	
4	1	"C"	
5	1	blank	
6-14	9	" 1770805"	CAS Number
15-25	11	blank	
26-30	5	"PERCT"	Units
31-46	16	blank	
47	1	"D"	Identifies Retention Time Percent Difference
48	1	blank	
49-54	6	Retention Time Shift Percent D	Right justified; fixed or scientific notation
55	1	blank or 'E'	Blank field is interpreted as "+00"
56-58	3	Exponent	

11.9 Format of the Sample Header Data Records (Type 20-23) for Continuing Checks Format

Record Position	Field Length	Field Contents	Remarks
1-2	2	"20"	
3-6	4	blank	
7-13	7	Identifier	e.g., VTD050
14	1	Daily Sequence Number	From Exhibit B
15	1	blank	
16	1	"0"	All matrices
17	1	blank	
18-20	3	"CLC"	Indicates Continuing Check
21	1	blank	
22-24	3	Sample Qualifier	See page H-79
25	1	blank	
26-30	5	Case Number	
31-38	8	blank	
39-46	8	Date of Instrumental analysis	YY MM DD
47	1	blank	
48-52	5	Hour, Min. of analysis	HH MM
53-66	14	blank	
67-69	3	Analyte count	Numeric; 1-3 decimal digits; right justified.

Record Position	Field Length	Field Contents	Remarks
1-2	2	"21"	Record Type
3-17	15	blank	
18-23	6	SAS Number	Leave blank if none.
24	1	blank	
25-35	11	Lab File I.D.	

Record Position	Field Length	Field Contents	Remarks
1-2	2	"23"	Record Type
3	1	blank	
4	1	"P"	Labels data as "tune" data.
5	1	blank	
6-13	8	Date of associated DFTPP/BFB injection	YY MM DD. Aquisition date of tune to be linked with this calibration.
14	1	blank	
15-19	5	Time of DFTPP/BFB injection	HH MM
20	1	blank	
21-31	11	DFTPP/BFB Lab File ID	From instrument data system.

Record Position	Field Length	Field Contents	Remarks
1-2	2	"30"	
3	1	blank	
4	1	"C"	
5	1	blank	
6-14	9	CAS Number	Right justified.
15	1	blank	
16-24	9	CAS Number Internal Standard Utilized	Right justified.
25-31	7	blank	
32-34	3	Non-numeric result	See page H-79; also called a result qualifier.
35	1	blank	
36-41	6	Response Factor	Right justified; fixed or scientific notation. Blank field will be interpreted as "+00".
42	1	blank or 'E'	
43-45	3	Exponent	
46-59	14	blank	
60	1	"D"	Identifies Percent Difference.
61	1	blank	
62-66	5	RF Percent Difference	From Initial Calibration (from Form 7).
67	1	blank or 'E'	
68-70	3	Exponent	